

GenCore version 5.1.6  
Copyright (c) 1993 - 2005 CompuGen Ltd.

OM nucleic - nucleic search, using sw model

Run on: April 28, 2005, 15:52:12 ; Search time 2574 Seconds  
(without alignments)  
9412.435 Million cell updates/sec

Title: US-10-043-160-5\_COPY\_1\_500

Perfect score: 500

Sequence: 1 atatagagtaaaacttggtc.....cagaagtaagtggccgcag 500

Scoring table: IDENTITY NUC

Gapop 10.0 , Gapext 1.0

Searched: 4708233 seqs, 24227607955 residues

Total number of hits satisfying chosen parameters: 9416466

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

GenEmbl.\*

1: gb\_ba.\*

2: gb\_htg.\*

3: gb\_in.\*

4: gb\_om.\*

5: gb\_ov.\*

6: gb\_pat.\*

7: gb\_ph.\*

8: gb\_pl.\*

9: gb\_pr.\*

10: gb\_ro.\*

11: gb\_sts.\*

12: gb\_sy.\*

13: gb\_un.\*

14: gb\_vi.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

| Result No. | Score | Query Match % | Length | DB ID | Description        |
|------------|-------|---------------|--------|-------|--------------------|
| 1          | 500   | 100.0         | 7941   | 12    | Li9899 Cloning vec |
| 2          | 500   | 100.0         | 43228  | 6     | A95274 Sequence 5  |
| 3          | 462   | 92.4          | 1086   | 6     | AX212292 Sequence  |
| 4          | 462   | 92.4          | 1103   | 1     | AF427127 Escherich |
| 5          | 462   | 92.4          | 1106   | 6     | I02541 Sequence 1  |
| 6          | 462   | 92.4          | 1652   | 6     | I01971 Sequence 2  |
| 7          | 462   | 92.4          | 1905   | 6     | AR027070 Sequence  |
| 8          | 462   | 92.4          | 1905   | 6     | I86203 Sequence 9  |
| 9          | 462   | 92.4          | 2320   | 6     | AR371194 Sequence  |
| 10         | 462   | 92.4          | 2320   | 6     | BD008862 Hepatitis |
| 11         | 462   | 92.4          | 2408   | 12    | ASTNNAX9           |
| 12         | 462   | 92.4          | 2783   | 12    | CVU47670           |
| 13         | 462   | 92.4          | 2846   | 12    | SYNNOMPA           |
| 14         | 462   | 92.4          | 2870   | 6     | AX107930           |
| 15         | 462   | 92.4          | 2913   | 12    | CVU47332           |
| 16         | 462   | 92.4          | 3003   | 6     | AR362785           |
| 17         | 462   | 92.4          | 3097   | 6     | AX107931           |
| 18         | 462   | 92.4          | 3122   | 6     | AR161211           |
| 19         | 462   | 92.4          | 3122   | 6     | AR370166           |

|    |     |      |      |    |            |
|----|-----|------|------|----|------------|
| 20 | 462 | 92.4 | 3122 | 6  | BD096800   |
| 21 | 462 | 92.4 | 3159 | 6  | AX082146   |
| 22 | 462 | 92.4 | 3159 | 6  | AX088825   |
| 23 | 462 | 92.4 | 3159 | 6  | AX365120   |
| 24 | 462 | 92.4 | 3189 | 6  | AX30504    |
| 25 | 462 | 92.4 | 3259 | 12 | XXU16281   |
| 26 | 462 | 92.4 | 3273 | 12 | AREF327    |
| 27 | 462 | 92.4 | 3274 | 12 | SYNPBR327V |
| 28 | 462 | 92.4 | 3277 | 6  | A30505     |
| 29 | 462 | 92.4 | 3277 | 6  | A30507     |
| 30 | 462 | 92.4 | 3384 | 6  | A30503     |
| 31 | 462 | 92.4 | 3387 | 6  | E00974     |
| 32 | 462 | 92.4 | 3396 | 12 | ASPSG424   |
| 33 | 462 | 92.4 | 3418 | 6  | AR072541   |
| 34 | 462 | 92.4 | 3427 | 6  | A30513     |
| 35 | 462 | 92.4 | 3427 | 6  | A30515     |
| 36 | 462 | 92.4 | 3431 | 12 | AF308739   |
| 37 | 462 | 92.4 | 3432 | 12 | AF308741   |
| 38 | 462 | 92.4 | 3433 | 12 | AF308740   |
| 39 | 462 | 92.4 | 3468 | 6  | E00954     |
| 40 | 462 | 92.4 | 3473 | 6  | AX766168   |
| 41 | 462 | 92.4 | 3473 | 6  | AX815026   |
| 42 | 462 | 92.4 | 3477 | 6  | E00952     |
| 43 | 462 | 92.4 | 3507 | 12 | SYNPDBLUS  |
| 44 | 462 | 92.4 | 3516 | 6  | AR202883   |
| 45 | 462 | 92.4 | 3541 | 6  | E00953     |

## ALIGNMENTS

RESULT 1  
SYNCPVPTCF  
LOCUS  
DEFINITION  
ACCESSION  
VERSION  
KEYWORDS  
SOURCE  
ORGANISM  
REFERENCE  
AUTHORS  
TITLE  
JOURNAL  
MEDLINE  
PUBMED  
COMMENT  
FEATURES  
ORIGIN  
Query Match  
Best Local Similarity  
Matches 500; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
QY 1 ATATATGAGTAAACTTGGTCTGACAGTACCAATGCTTAATCAGTACGAGGACCTATCTCA 60  
DB 1530 ATATATGAGTAAACTTGGTCTGACAGTACCAATGCTTAATCAGTACGAGGACCTATCTCA 1599

SYNCPVPTCF 7941 bp DNA linear SYN 20-OCT-1999  
Cloning vector cosmid pTCF DNA sequence encoding beta-lactamase gene.

Li9899.1 GI:310738

beta-lactamase.

Cloning vector pTCF

Cloning vector pTCF

other sequences; artificial sequences; vectors.

1 (bases 1 to 7941)

Pan.H.Q., Wang.Y.P., Chissos.S.L., Bodenteich.A., Wang.Z., Iyer,K.,

Clifton.S.W., Crabtree,J.S. and Roe,B.A.

The complete nucleotide sequences of the SacBII Kan domain of the

PI pAD10-SacBII cloning vector and three cosmid cloning vectors:

pTCF, SYNCP, and LAMRIS16

Genet. Anal. Tech. Appl. 11 (5-6), 181-186 (1994)

95228138

7710784

a cosmid cloning vector constructed by F. Grosvald, Department of

Cell Biology, Erasmus University, Rotterdam, The Netherlands.

Location/Qualifiers

1..7941

/organism="Cloning vector pTCF"

/mol\_type="genomic DNA"

/db\_xref="taxon:106076"

1559..2419

/pseudo

/codon\_start=1

/transl\_table=11

/product="beta-lactamase"

Query Match 100.0%; Score 500; DB 12; Length 7941;

Best Local Similarity 100.0%; Pred. No. 1.4e-146;

Matches 500; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATATATGAGTAAACTTGGTCTGACAGTACCAATGCTTAATCAGTACGAGGACCTATCTCA 60

DB 1530 ATATATGAGTAAACTTGGTCTGACAGTACCAATGCTTAATCAGTACGAGGACCTATCTCA 1599

```

61 GCATCTGCTCTATTTTCATCCATAGTTGCTGCACTCCCGCTCGTGTAGATAACT 120
|
|
|
1590 GCGATCTGCTATTTTGGTTATCCATAGTTGCTGCACTCCCGCTCGTGTAGATAACT 1649
|
|
|
121 ACGATACGGAGGCTTACCATCTGGGCCCAAGTCTGCAATGATACCGGAAAGCCACAG 180
|
|
|
1650 ACGATACGGAGGCTTACCATCTGGGCCCAAGTCTGCAATGATACCGGAAAGCCACAG 1709
|
|
|
181 CTCACCGCTCCAGATTATCAGCAATAAACCCAGCCAGCCGGAAGCCGACAG 240
|
|
|
1710 CTCACCGCTCCAGATTATCAGCAATAAACCCAGCCAGCCGGAAGCCGACAG 1769
|
|
|
241 TGGTCTGCAACTTTATCCGCTCCATCCAGTCTATTAATTTGTCGGGAAGCTAGAGT 300
|
|
|
1770 TGGTCTGCAACTTTATCCGCTCCATCCAGTCTATTAATTTGTCGGGAAGCTAGAGT 1829
|
|
|
301 AAGTAGTTCCGCAAGTTAATAGTTGCGCAACGTTGTTGCCATTGCTCGAGCATCGTGGT 360
|
|
|
1830 AAGTAGTTCCGCAAGTTAATAGTTGCGCAACGTTGTTGCCATTGCTCGAGCATCGTGGT 1889
|
|
|
361 GTACAGCTCGTCTGTTGTTGATGCTTCATTCAGCTCCGTTCCCAAGCATCAGGCGAGT 420
|
|
|
1890 GTACAGCTCGTCTGTTGTTGATGCTTCATTCAGCTCCGTTCCCAAGCATCAGGCGAGT 1949
|
|
|
421 TACATGATCCCCATGTTGTGCAAAAAGCGTTAGCTCTCGGTCCTCCGATCGTTGT 480
|
|
|
1950 TACATGATCCCCATGTTGTGCAAAAAGCGTTAGCTCTCGGTCCTCCGATCGTTGT 2009
|
|
|
481 CAGAACTAAGTTGCCCGCAG 500
|
|
|
2010 CAGAACTAAGTTGCCCGCAG 2029
|
|
|

```

```

RESULT 2
A95274
LOCUS A95274 43228 bp DNA linear PAT 26-JAN-2000
DEFINITION Sequence 5 from Patent WO927132.
ACCESSION A95274
VERSION A95274.1 GI:6779320
KEYWORDS
SOURCE
ORGANISM
REFERENCE
1 (bases 1 to 43228)
AUTHORS Chaussee, A. and Zoorob, R.
TITLE REAGENTS AND METHODS FOR DETECTING GENES RELATED TO MAJOR
HISTOCOMPATIBILITY COMPLEX OF DOMESTIC FOWL, SUCH AS CHICKEN
JOURNAL Patent: WO 927132-A 5 03-JUN-1999;
AGRONOMIQUE INST NAT RECH (FR); CHAUSSEE ANNE MARIE (FR)
FEATURES
source
1. 43228
Location/Qualifiers
/organism="unidentified"
/mol_type="unassigned DNA"
/db_xref="taxon:32644"

```

```

ORIGIN
Query Match 100.0%; Score 500; DB 6; Length 43228;
Best Local Similarity 100.0%; Pred. No. 1.5e-146;
Matches 500; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATATATGAGTAACTTGGTCTGACAGTTACCAATGTTAATCAGTGAGGACCTATCTCA 60
|
|
|
1 ATATATGAGTAACTTGGTCTGACAGTTACCAATGTTAATCAGTGAGGACCTATCTCA 60
|
|
|
61 GCGATCTGCTATTTTCGTTTCATCCATAGTTGCTGCACTCCCGCTCGTGTAGATAACT 120
|
|
|
61 GCGATCTGCTATTTTCGTTTCATCCATAGTTGCTGCACTCCCGCTCGTGTAGATAACT 120
|
|
|
121 ACGATACGGAGGCTTACCATCTGGGCCCAAGTCTGCAATGATACCGGAAAGCCACAG 180
|
|
|
121 ACGATACGGAGGCTTACCATCTGGGCCCAAGTCTGCAATGATACCGGAAAGCCACAG 180
|
|
|
181 CTCACCGCTCCAGATTATCAGCAATAAACCCAGCCAGCCGGAAGCCGACAG 240
|
|
|

```

```

181 CTACCGGCTCCAGATTATCAGCAATAAACCCAGCCAGCCGGAAGCCGACAG 240
|
|
|
241 TGGTCTGCAACTTTATCCGCTCCATCCAGTCTATTAATTTGTCGGGAAGCTAGAGT 300
|
|
|
241 TGGTCTGCAACTTTATCCGCTCCATCCAGTCTATTAATTTGTCGGGAAGCTAGAGT 300
|
|
|
301 AAGTAGTTCCGCAAGTTAATAGTTGCGCAACGTTGTTGCCATTGCTCGAGCATCGTGGT 360
|
|
|
301 AAGTAGTTCCGCAAGTTAATAGTTGCGCAACGTTGTTGCCATTGCTCGAGCATCGTGGT 360
|
|
|
361 GTACAGCTCGTCTGTTGTTGATGCTTCATTCAGCTCCGTTCCCAAGCATCAGGCGAGT 420
|
|
|
361 GTACAGCTCGTCTGTTGTTGATGCTTCATTCAGCTCCGTTCCCAAGCATCAGGCGAGT 420
|
|
|
421 TACATGATCCCCATGTTGTGCAAAAAGCGTTAGCTCTCGGTCCTCCGATCGTTGT 480
|
|
|
421 TACATGATCCCCATGTTGTGCAAAAAGCGTTAGCTCTCGGTCCTCCGATCGTTGT 480
|
|
|
481 CAGAACTAAGTTGCCCGCAG 500
|
|
|
481 CAGAACTAAGTTGCCCGCAG 500
|
|
|

```

```

RESULT 3
AX212292
LOCUS AX212292 1086 bp DNA linear PAT 06-SEP-2001
DEFINITION Sequence 11 from Patent WO0159086.
ACCESSION AX212292
VERSION AX212292.1 GI:15524056
KEYWORDS
SOURCE
ORGANISM
REFERENCE
1
AUTHORS Fabjanski, S.F., Robert, L., Scherthaner, J. and Wu, T.
TITLE Methods and constructs for agrobacterium-mediated plant
transformation
JOURNAL Patent: WO 0159086-A 11 16-AUG-2001;
Sakata Seed Corporation (JP)
FEATURES
source
1. 1086
Location/Qualifiers
/organism="synthetic construct"
/mol_type="unassigned DNA"
/db_xref="taxon:32630"
/notice="Ampicillin resistance gene: pBR322 GenBank
Accession No. J01749 (3265-4350)"

```

```

ORIGIN
Query Match 92.4%; Score 462; DB 6; Length 1086;
Best Local Similarity 99.2%; Pred. No. 1.2e-134;
Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;

QY 1 ATATATGAGTAACTTGGTCTGACAGTTACCAATGTTAATCAGTGAGGACCTATCTCA 60
|
|
|
3 ATATATGAGTAACTTGGTCTGACAGTTACCAATGTTAATCAGTGAGGACCTATCTCA 62
|
|
|
61 GCGATCTGCTATTTTCGTTTCATCCATAGTTGCTGCACTCCCGCTCGTGTAGATAACT 120
|
|
|
63 GCGATCTGCTATTTTCGTTTCATCCATAGTTGCTGCACTCCCGCTCGTGTAGATAACT 119
|
|
|
121 ACGATACGGAGGCTTACCATCTGGGCCCAAGTCTGCAATGATACCGGAAAGCCACAG 180
|
|
|
120 ACGATACGGAGGCTTACCATCTGGGCCCAAGTCTGCAATGATACCGGAAAGCCACAG 178
|
|
|
181 CTCACCGCTCCAGATTATCAGCAATAAACCCAGCCAGCCGGAAGCCGACAG 240
|
|
|
179 CTCACCGCTCCAGATTATCAGCAATAAACCCAGCCAGCCGGAAGCCGACAG 238
|
|
|
241 TGGTCTGCAACTTTATCCGCTCCATCCAGTCTATTAATTTGTCGGGAAGCTAGAGT 300
|
|
|
239 TGGTCTGCAACTTTATCCGCTCCATCCAGTCTATTAATTTGTCGGGAAGCTAGAGT 298
|
|
|

```

```

QY 301 AAGTAGTTCGCGAGTTAATAGTTGGCGCAAGTTGTTGCCATTGCTCGCAGGCATCGTGGT 360
Db 299 AAGTAGTTCGCGAGTTAATAGTTGGCGCAAGTTGTTGCCATTGCTCGCAGGCATCGTGGT 358
QY 361 GTCACGCTCGTGGTTGCGTATGCTTCATTCAGCTCGGTTCCCAAGATCAAGGCGAGT 420
Db 359 GTCACGCTCGTGGTTGCGTATGCTTCATTCAGCTCGGTTCCCAAGATCAAGGCGAGT 418
QY 421 TACATGATCCCCCATGTTGTGCAAAAAGCGGTTAGCTCCTTCGGTCCCTCCGATCGTTGT 480
Db 419 TACATGATCCCCCATGTTGTGCAAAAAGCGGTTAGCTCCTTCGGTCCCTCCGATCGTTGT 478
QY 481 CAGAGTAAGTTGGCCCGCAG 500
Db 479 CAGAGTAAGTTGGCCCGCAG 498

RESULT 4
AF427127/c
LOCUS 1103 bp DNA linear BCT 08-NOV-2001
DEFINITION Escherichia coli inhibitor-resistant beta-lactamase TEM-81
ACCESSION AF427127
VERSION AF427127.1 GI:16798369
KEYWORDS
SOURCE Escherichia coli
ORGANISM Escherichia coli
Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
Enterobacteriaceae; Escherichia.
REFERENCE 1 (bases 1 to 1103)
AUTHORS Leflon-Guibout,V., Spelidooren,V., Heym,B. and Nicolas-Chanoine,M.
TITLE Epidemiological survey of amoxicillin-clavulanate resistance and
corresponding molecular mechanisms in Escherichia coli isolates in
France: new genetic features of bla(TEM) genes
JOURNAL Antimicrob. Agents Chemother. 44 (10), 2709-2714 (2000)
MEDLINE 20448741
PUBMED 10991849
REFERENCE 2 (bases 1 to 1103)
AUTHORS Leflon-Guibout,V., Spelidooren,V., Heym,B. and
Nicolas-Chanoine,M.-H.
TITLE Direct Submission
JOURNAL Submitted (03-OCT-2001) Microbiology Service, Ambroise Pare
University Hospital, 9 avenue Charles de Gaulle, Boulogne 92100,
France

FEATURES
Source Location/Qualifiers
1. .1103
/organism="Escherichia coli"
/mol_type="genomic DNA"
/db_xref="taxon:562"
209..1069
/gene="blaTEM-81"
209..1069
/gene="blaTEM-81"
/codon_start=1
/transl_table=11
/product="inhibitor-resistant beta-lactamase TEM-81"
/protein_id="AAL29433.1"
/db_xref="GI:16798370"
/translation="MSIQHPRVALIPFFAACPCLPFAHPETLVKVKDAEDQLGARVGY
IEDLSNGKILESFRPEERFPMLSFTKVLCCGAVLSKRVDAQGQQLGRRIRHNSGNDLVE
YSPVTEKHGTDIPNDRDTPMAAMATTLRLKLTGLLTLASRQQLIDWMEADKVAQPL
LRSLPAGWFIADKSGAGERSGIIAALGPDKSPRIIVVITYTGSQATWDERNRQIA
EIGASLIKHW"

ORIGIN
Query Match 92.4%; Score 462; DB 1; Length 1103;
Best Local Similarity 99.2%; Pred. No. 1.2e-134;
Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;

1
QY 1 ATATATAGTAAGTAAGTTCGCTGACAGTTACCAATGCTTAATCAGTAGGACCCTATCTCA 60
Db 1095 ATATATAGTAAGTAAGTTCGCTGACAGTTACCAATGCTTAATCAGTAGGACCCTATCTCA 1036

```

```

QY 61 GCGATCTGTCTATTTCGTTCCATCCCATAGTTGCTGCAACTCCCCTCGTGTAGATAACT 120
Db 1035 GCGATCTGTCTATTTCGTTCCAT -CCATAGTTGCTG -ACTCCCCTCGTGTAGATAACT 979
QY 121 ACCATACGGGAGGGCTTACCATCTGSCCCAGTCTGCAATGATACCGCAAGACCCACG 180
Db 978 ACCATACGGGAGGGCTTACCATCTGSCCCAGTCTGCAATGATACCGCG -AGACCCACG 920
QY 181 CTCACCGGCTCCAGATTTATCAGCAATAAACACGAGCCGGAAGGCCGAGCAGAG 240
Db 919 CTCACCGGCTCCAGATTTATCAGCAATAAACACGAGCCGGAAGGCCGAGCAGAG 860
QY 241 TGGTCTCTGCAACTTTATCCGCTCCATCCAGTCTTATTAATTGTTGCGGGAAGCTAGAGT 300
Db 859 TGGTCTCTGCAACTTTATCCGCTCCATCCAGTCTTATTAATTGTTGCGGGAAGCTAGAGT 800
QY 301 AAGTAGTTCGCGAGTTAATAGTTGGCGCAAGTTGTTGCCATTGCTCGCAGGCATCGTGGT 360
Db 799 AAGTAGTTCGCGAGTTAATAGTTGGCGCAAGTTGTTGCCATTGCTCGCAGGCATCGTGGT 740
QY 361 GTCACGCTCGTGGTTGCGTATGCTTCATTCAGCTCGGTTCCCAAGATCAAGGCGAGT 420
Db 739 GTCACGCTCGTGGTTGCGTATGCTTCATTCAGCTCGGTTCCCAAGATCAAGGCGAGT 680
QY 421 TACATGATCCCCCATGTTGTGCAAAAAGCGGTTAGCTCCTTCGGTCCCTCCGATCGTTGT 480
Db 679 TACATGATCCCCCATGTTGTGCAAAAAGCGGTTAGCTCCTTCGGTCCCTCCGATCGTTGT 620
QY 481 CAGAGTAAGTTGGCCCGCAG 500
Db 619 CAGAGTAAGTTGGCCCGCAG 600

RESULT 5
102541/c
LOCUS 1106 bp ss-DNA linear PAT 21-MAY-1993
DEFINITION Sequence 1 from Patent US 4565785.
ACCESSION 102541
VERSION 102541.1 GI:268188
KEYWORDS
SOURCE Unknown.
ORGANISM Unknown.
REFERENCE 1 (bases 1 to 1106)
AUTHORS Gilbert,W., Broome,S.A., Villa-Komaroff,L.J. and Efstratiadis,A.A.
TITLE Recombinant DNA molecule
JOURNAL Patent: US 4565785-A 1 21-JAN-1986;
The President and Fellows of Harvard College; Cambridge, MA
FEATURES
source Location/Qualifiers
1. .1106
/organism="unknown"
/mol_type="unassigned DNA"

ORIGIN
Query Match 92.4%; Score 462; DB 6; Length 1106;
Best Local Similarity 99.2%; Pred. No. 1.2e-134;
Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;

1
QY 1 ATATATAGTAAGTAAGTTCGCTGACAGTTACCAATGCTTAATCAGTAGGACCCTATCTCA 60
Db 1098 ATATATAGTAAGTAAGTTCGCTGACAGTTACCAATGCTTAATCAGTAGGACCCTATCTCA 1039
QY 61 GCGATCTGTCTATTTCGTTCCATCCCATAGTTGCTGCAACTCCCCTCGTGTAGATAACT 120
Db 1038 GCGATCTGTCTATTTCGTTCCAT -CCATAGTTGCTG -ACTCCCCTCGTGTAGATAACT 982
QY 121 ACCATACGGGAGGGCTTACCATCTGSCCCAGTCTGCAATGATACCGCAAGACCCACG 180
Db 981 ACCATACGGGAGGGCTTACCATCTGSCCCAGTCTGCAATGATACCGCG -AGACCCACG 923
QY 181 CTCACCGGCTCCAGATTTATCAGCAATAAACACGAGCCGGAAGGCCGAGCAGAG 240

```

```

922 CTACCGGCTCCAGATTATCAGCAATAAACACGACGCGGGAAGGCGCGCAGAG 863
241 TGGTCTCTGCAACTTTATCCGCTCCATCCAGTCTATTAAATGTTGCCGGAAGCTAGAGT 300
862 TGGTCTCTGCAACTTTATCCGCTCCATCCAGTCTATTAAATGTTGCCGGAAGCTAGAGT 803
301 AGTAGTTCGCCAGTTAAATAGTTTGGCAACGTTGTCATGTCGAGGATCGTGGT 360
802 AAGTAGTTCGCCAGTTAAATAGTTTGGCAACGTTGTCATGTCGAGGATCGTGGT 743
361 GTACCGCTCGCTGTTGGTATGCTTCATTACGCTCCGCTCCCAACGATCAAGCGAGT 420
742 GTACCGCTCGCTGTTGGTATGCTTCATTACGCTCCGCTCCCAACGATCAAGCGAGT 683
421 TACATGATCCCCATGTTGTGCAAAAAGCGTTAGTCTCTCGTCTCCGATCGTTGT 480
682 TACATGATCCCCATGTTGTGCAAAAAGCGTTAGTCTCTCGTCTCCGATCGTTGT 623
481 CAGAAGTAAGTTGGCCGCAG 500
622 CAGAAGTAAGTTGGCCGCAG 603

RESULT 6
LOCUS I01971 1652 bp ss-DNA linear PAT 21-MAY-1993
DEFINITION Sequence 2 from Patent US 4795699.
ACCESSION I01971
VERSION I01971.1 GI:269733
KEYWORDS
SOURCE Unknown.
ORGANISM
REFERENCE Unclassified.
AUTHORS 1 (bases 1 to 1652)
Tabor,S. and Richardson,C.C.
TITLE T7 DNA polymerase
JOURNAL Patent: US 4795699-A 2 03-JAN-1989;
FEATURES Location/Qualifiers
source 1..1652
/organism="unknown"
/mol_type="unassigned DNA"

ORIGIN
Query Match 92.4%; Score 462; DB 6; Length 1652;
Best Local Similarity 99.2%; Pred. No. 1.3e-134;
Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;

QY 1 ATATATGAGTAAACTTGGTCTGACAGTTACCAATGCTTAATCAGTAGGACCTATCTCA 60
DB 558 ATATATGAGTAAACTTGGTCTGACAGTTACCAATGCTTAATCAGTAGGACCTATCTCA 617
QY 61 CGCATCTGCTATTTCGTTATCCCATAGTTGCTCGCAACTCCCGCTCGTGTAGATAACT 120
DB 618 CGCATCTGCTATTTCGTTATCCCATAGTTGCTCGCAACTCCCGCTCGTGTAGATAACT 674
QY 121 ACGATACGGGAGGCTTACCATCTGGCCCCAGTCTGCAATGATACCGCGAAGCCACG 180
DB 675 ACGATACGGGAGGCTTACCATCTGGCCCCAGTCTGCAATGATACCGCG-AGACCCACG 733
QY 181 CTCACCGGCTCCAGATTATCAGCAATAAACACGACGCGGGAAGGCGCGCAGAAG 240
DB 734 CTCACCGGCTCCAGATTATCAGCAATAAACACGACGCGGGAAGGCGCGCAGAAG 793
QY 241 TGGTCTCGCAACTTTATCCGCTCCATCCAGTCTATTAAATGTTGCCGGAAGCTAGAGT 300
DB 794 TGGTCTCGCAACTTTATCCGCTCCATCCAGTCTATTAAATGTTGCCGGAAGCTAGAGT 853
QY 301 AAGTAGTTCGCCAGTTAAATAGTTTGGCAACGTTGTCATGTCGAGGATCGTGGT 360
DB 854 AAGTAGTTCGCCAGTTAAATAGTTTGGCAACGTTGTCATGTCGAGGATCGTGGT 913
QY 361 GTACCGCTCGCTGTTGGTATGCTTCATTACGCTCCGCTCCCAACGATCAAGCGAGT 420
```

```

914 GTACCGCTCGCTGTTGGTATGCTTCATTACGCTCCGCTTCCCAACGATCAAGCGAGT 973
421 TACATGATCCCCATGTTGTGCAAAAAGCGTTAGTCTCTCGTCTCCGATCGTTGT 480
974 TACATGATCCCCATGTTGTGCAAAAAGCGTTAGTCTCTCGTCTCCGATCGTTGT 1033
481 CAGAAGTAAGTTGGCCGCAG 500
1034 CAGAAGTAAGTTGGCCGCAG 1053

RESULT 7
LOCUS AR027070 1905 bp DNA linear PAT 29-SEP-1999
DEFINITION Sequence 9 from patent US 5856142.
ACCESSION AR027070
VERSION AR027070.1 GI:5937910
KEYWORDS
SOURCE Unknown.
ORGANISM
REFERENCE Unclassified.
AUTHORS 1 (bases 1 to 1905)
Legoux,R., Maldonado,P. and Salome,M.
TITLE Method for the extraction of periplasmic proteins from prokaryotic
microorganisms in the presence of arginine
JOURNAL Patent: US 5856142-A 9 05-JAN-1999;
FEATURES Location/Qualifiers
source 1..1905
/organism="unknown"
/mol_type="unassigned DNA"

ORIGIN
Query Match 92.4%; Score 462; DB 6; Length 1905;
Best Local Similarity 99.2%; Pred. No. 1.3e-134;
Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;

QY 1 ATATATGAGTAAACTTGGTCTGACAGTTACCAATGCTTAATCAGTAGGACCTATCTCA 60
DB 817 ATATATGAGTAAACTTGGTCTGACAGTTACCAATGCTTAATCAGTAGGACCTATCTCA 876
QY 61 CGCATCTGCTATTTCGTTATCCCATAGTTGCTCGCAACTCCCGCTCGTGTAGATAACT 120
DB 877 CGCATCTGCTATTTCGTTATCCCATAGTTGCTCGCAACTCCCGCTCGTGTAGATAACT 933
QY 121 ACGATACGGGAGGCTTACCATCTGGCCCCAGTCTGCAATGATACCGCGAAGCCACG 180
DB 934 ACGATACGGGAGGCTTACCATCTGGCCCCAGTCTGCAATGATACCGCG-AGACCCACG 992
QY 181 CTCACCGGCTCCAGATTATCAGCAATAAACACGACGCGGGAAGGCGCGCAGAAG 240
DB 993 CTCACCGGCTCCAGATTATCAGCAATAAACACGACGCGGGAAGGCGCGCAGAAG 1052
QY 241 TGGTCTCGCAACTTTATCCGCTCCATCCAGTCTATTAAATGTTGCCGGAAGCTAGAGT 300
DB 1053 TGGTCTCGCAACTTTATCCGCTCCATCCAGTCTATTAAATGTTGCCGGAAGCTAGAGT 1112
QY 301 AAGTAGTTCGCCAGTTAAATAGTTTGGCAACGTTGTCATGTCGAGGATCGTGGT 360
DB 1113 AAGTAGTTCGCCAGTTAAATAGTTTGGCAACGTTGTCATGTCGAGGATCGTGGT 1172
QY 361 GTACCGCTCGCTGTTGGTATGCTTCATTACGCTCCGCTTCCCAACGATCAAGCGAGT 420
DB 1173 GTACCGCTCGCTGTTGGTATGCTTCATTACGCTCCGCTTCCCAACGATCAAGCGAGT 1232
QY 421 TACATGATCCCCATGTTGTGCAAAAAGCGTTAGTCTCTCGTCTCCGATCGTTGT 480
DB 1233 TACATGATCCCCATGTTGTGCAAAAAGCGTTAGTCTCTCGTCTCCGATCGTTGT 1292
QY 481 CAGAAGTAAGTTGGCCGCAG 500
DB 1293 CAGAAGTAAGTTGGCCGCAG 1312
```

| REFERENCE                 | 1 (bases 1 to 2320)  |
|---------------------------|--|
| AUTHORS                   | Jang,S.K. and Hahn,B.  |
| TITLE                     | Hepatitis C surrogate virus for testing the activity of hepatitis C virus protease, a recombinant gene and a use thereof   |
| JOURNAL                   | Patent: US 6395471-A 13 28-MAY-2002;   |
| FEATURES                  | Location/Qualifiers  |
| source                    | 1..2320  |
| ORIGIN                    | /organism="unknown"  |
|                           | /mol_type="genomic DNA"  |
| Query Match               | 92.4%; Score 462; DB 6; Length 2320;   |
| Best Local Similarity     | 99.2%; Pred. No. 1.3e-134;   |
| Matches 496; Conservative | 0; Mismatches 0; Indels 4; Gaps 3;   |
| Qy                        | 1 ATATATGAGTAAACTTGGGCTGACAGATTACCAATGCTTAATCAGTGAAGGACCACTATCTCA 60   |
| Db                        | 2277 ATATATGAGTAAACTTGGGCTGACAGATTACCAATGCTTAATCAGTGAAGGACCACTATCTCA 2218  |
| Qy                        | 61 GCGATCTGTCTATTTTCGTTCAATCCCATAGTTGCTTGCCTGCAACTCCCGCTCGTGTAGATAA 120  |
| Db                        | 2217 GCGATCTGTCTATTTTCGTTCAATCCCATAGTTGCTTGCCTGCAACTCCCGCTCGTGTAGATAA 2161   |
| Qy                        | 121 ACATATACGGAGGGGCTTACCATCTGCGCCCGAGTCTGCAATGATACGCGAGACCCACG 180  |
| Db                        | 2160 ACATATACGGAGGGGCTTACCATCTGCGCCCGAGTCTGCAATGATACGCGAGACCCACG 2102  |
| Qy                        | 181 CTCACCGGCTCCAGATTATCAGCAATAAACACGAGCGCGGAAGCGCGAGCGCAGAAG 240  |
| Db                        | 2101 CTCACCGGCTCCAGATTATCAGCAATAAACACGAGCGCGGAAGCGCGAGCGCAGAAG 2042  |
| Qy                        | 241 TGGTCTCTGCAACTTTATTCGCTTCAATCCAGTCTATTAATTTGTCGGGAAGCTAGAGT 300  |
| Db                        | 2041 TGGTCTCTGCAACTTTATTCGCTTCAATCCAGTCTATTAATTTGTCGGGAAGCTAGAGT 1982  |
| Qy                        | 301 AAGTAGTTGCGCAGTTAATAGTTTGGCGCAACGTTGTTGCCATTGCTGCAGGCATCGTGGT 360  |
| Db                        | 1981 AAGTAGTTGCGCAGTTAATAGTTTGGCGCAACGTTGTTGCCATTGCTGCAGGCATCGTGGT 1922  |
| Qy                        | 361 GTACAGCTCGTGGTTGGTATGCTTCATTTCAGCTCCGGTTCCTCCACAGATCAAGGCGGAGT 420   |
| Db                        | 1921 GTACAGCTCGTGGTTGGTATGCTTCATTTCAGCTCCGGTTCCTCCACAGATCAAGGCGGAGT 1862   |
| Qy                        | 421 TACATGATCCCCCATGTTGTGCAAAAAGCGGTTAGCTCTCTTGGGTCCTCCGATCGTTGT 480   |
| Db                        | 1861 TACATGATCCCCCATGTTGTGCAAAAAGCGGTTAGCTCTCTTGGGTCCTCCGATCGTTGT 1802   |
| Qy                        | 481 CAGAAGTAAGTTGGCCGCGAG 500  |
| Db                        | 1801 CAGAAGTAAGTTGGCCGCGAG 1782  |
| RESULT 10                 |  |
| BD008862/c                |  |
| LOCUS                     | 2320 bp DNA linear PAT 31-JAN-2002   |
| DEFINITION                | Hepatitis C surrogate virus for testing the activity of Hepatitis C virus protease, a recombinant gene and a use thereof Hepatitis C surrogate virus for testing the activity of Hepatitis C virus protease, a recombinant gene and a use thereof. |
| ACCESSION                 | BD008862   |
| VERSION                   | BD008862.1 GI:18637235   |
| KEYWORDS                  | JP 2001503967-A/4.   |
| SOURCE                    | synthetic construct  |
| ORGANISM                  | other sequences; artificial sequences.   |
| REFERENCE                 | 1 (bases 1 to 2320)  |
| AUTHORS                   | Jang,S.K. and Hahn,B.S.  |
| TITLE                     | Hepatitis C surrogate virus for testing the activity of Hepatitis C virus protease, a recombinant gene and a use thereof   |
| JOURNAL                   | Patent: JP 2001503967-A 4 27-MAR-2001;   |
| COMMENT                   | LG CHEMICALS CO LTD, CHANG UNIVERSITY OF SCIENCE AND TECHNOLOGY FOUNDATION   |
|                           | OS Artificial Sequence   |

PN JP 2001503967-A/4  
PD 27-MAR-2001  
PF 25-JUN-1997 JP 1998504001  
PR 28-JUN-1996 KR 1996/24910  
PI SUNG KEY JANG, BUM SUK HAHM  
PC C12N15/51,C12Q1/70  
CC  
FH  
FT  
FT

Key Location/Qualifiers  
source 1. 2320  
/organism="Artificial Sequence"  
/mol\_type="genomic DNA"  
/db\_xref="taxon:32630"

FEATURES  
source  
1. 2320  
/organism="synthetic construct"  
/mol\_type="genomic DNA"  
/db\_xref="taxon:32630"

ORIGIN  
Query Match 92.4%; Score 462; DB 6; Length 2320;  
Best Local Similarity 99.2%; Pred. No. 1.3e-134;  
Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;  
QY 1 ATATATGAGTAAACTTGGTCTGACAGTTACCAATGCTTAATCAGTGAAGGACCTATCTCA 60  
DB 2277 ATATATGAGTAAACTTGGTCTGACAGTTACCAATGCTTAATCAGTGAAGGACCTATCTCA 2218  
QY 61 GCGATCTGCTCTTTCCTTCCATCCCATAGTTCCTGCACTCCCGTTCGTTAGATAAAT 120  
DB 2217 GCGATCTGCTCTTTCCTTCCATCCCATAGTTCCTGCACTCCCGTTCGTTAGATAAAT 2161  
QY 121 ACGATACGGAGGGCTTACCATCTGGCCCGAGTCTGCAATGATACCGGAGACCCACG 180  
DB 2160 ACGATACGGAGGGCTTACCATCTGGCCCGAGTCTGCAATGATACCGGAGACCCACG 2102  
QY 181 CTCACCGGCTCCAGATTATCAGCAATAAACCGACGACCGGAGGCGCGAGAAG 240  
DB 2101 CTCACCGGCTCCAGATTATCAGCAATAAACCGACGACCGGAGGCGCGAGAAG 2042  
QY 241 TGGTCTGCACTTATCCCGCTCCATCCAGTCTTAAATTTGTTGCCGGAAGCTAGAGT 300  
DB 2041 TGGTCTGCACTTATCCCGCTCCATCCAGTCTTAAATTTGTTGCCGGAAGCTAGAGT 1982  
QY 301 AAGTAGTTCGCGAGTAAATAGTTTGCACAAAGTGTGTCATTCCTGCGGATCGTGGT 360  
DB 1981 AAGTAGTTCGCGAGTAAATAGTTTGCACAAAGTGTGTCATTCCTGCGGATCGTGGT 1922  
QY 361 GTCACGCTGCTGTTGGTATGCTTCATTCAGTCCGGTTCCTCCAAAGTCAAGGCGAGT 420  
DB 1921 GTCACGCTGCTGTTGGTATGCTTCATTCAGTCCGGTTCCTCCAAAGTCAAGGCGAGT 1862  
QY 421 TACATGATCCCCCATGTTGTGCAAAAAGCGTTAGTCTCTTCGTTCTCCGATCGTTGT 480  
DB 1861 TACATGATCCCCCATGTTGTGCAAAAAGCGTTAGTCTCTTCGTTCTCCGATCGTTGT 1802  
QY 481 CAGAAGTAAGTTGGCCGCGAG 500  
DB 1801 CAGAAGTAAGTTGGCCGCGAG 1782

RESULT 11  
ASTNMAX9  
LOCUS 2408 bp DNA linear SYN 06-JUL-2002  
DEFINITION Artificial DNA for pTnMax9 mini-transposon.  
ACCESSION Z50143  
VERSION Z50143.1 GI:938044  
KEYWORDS beta-lactamase; chloramphenicol acetyltransferase; mini-transposon; transposon.  
SOURCE  
ORGANISM synthetic construct  
other sequences: artificial sequences.  
REFERENCE 1 (bases 1 to 2408)  
AUTHORS Kahrs,A.F., Odenbret,S., Schmitt,W., Heuermann,D., Meyer,T.F. and Haas,R.  
TITLE An improved TnMax mini-transposon system suitable for sequencing,

JOURNAL shuttle mutagenesis and gene fusions  
MEDLINE Gene 167 (1-2), 53-57 (1995)  
PUBMED 96144248  
REFERENCE 8566811  
AUTHORS 2 (bases 1 to 2408)  
TITLE Improved TnMax mini-transposon system suitable for sequencing,  
shuttle mutagenesis and gene fusions  
Haas,R.  
JOURNAL  
REFERENCE 3 (bases 1 to 2408)  
AUTHORS Haas,R.  
TITLE Direct Submission  
JOURNAL Submitted (19-JUL-1995) Rainer Haas, Infektionsbiologie,  
Max-Planck-Institut fuer, Biologie, Spemannstr. 34, Tuebingen,  
B.W., D-72076, Germany  
FEATURES  
Location/Qualifiers  
source 1. 2408  
/organism="synthetic construct"  
/mol\_type="other DNA"  
/db\_xref="taxon:32630"  
/lab\_host="Escherichia coli K12"  
1. 2408  
/transposon="pTnMax9"  
1. 41  
/rpt\_type=INVERTED  
complement (42. .59)  
/note="M13-20 forward primer (M13-FP)"  
complement (77. .263)  
/note="fd-terminator (tfd)"  
complement (264. .923)  
/codon\_start=1  
/transl\_table=11  
/product="chloramphenicol acetyltransferase"  
/protein\_id="CAA90506.1"  
/db\_xref="GI:938045"  
/translation="MEKKITGTVTDISQWHRKEHFAFQSVACQTYNOTVOLDITAF  
LKTAKNGKFPAPFIHILRLMAHPEFRMAKDGELVJWDSVHPCTVHEQDET  
SSLSEYHDDFRQLHYISQDVACYGENLAYFPKGFIEFMFVSANPWSPTSEDLNV  
ANMNDFFAPVFTMGKYTQGDVLMPLAIQVHHAVCDFGHVGRMLNELQQYCDWEQGG  
A"  
gene complement (924. .1026)  
/gene="catGC"  
promoter complement (924. .1026)  
/gene="catGC"  
/note="gonococcal opa promoter"  
1027. .1260  
/note="rep-origin of bacteriophage fd (orf1d)"  
1261. .1428  
/function="resolution site (res)"  
complement (1554. .2342)  
/product="mature beta-lactamase (Blam)"  
2349. .2366  
/note="M13 reverse primer (M13-RP1)"  
2367. .2408  
/rpt\_type=INVERTED

ORIGIN  
Query Match 92.4%; Score 462; DB 12; Length 2408;  
Best Local Similarity 99.2%; Pred. No. 1.3e-134;  
Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;  
QY 1 ATATATGAGTAAACTTGGTCTGACAGTTACCAATGCTTAATCAGTGAAGGACCTATCTCA 60  
DB 1525 ATATATGAGTAAACTTGGTCTGACAGTTACCAATGCTTAATCAGTGAAGGACCTATCTCA 1584  
QY 61 GCGATCTGCTCTTTCCTTCCATCCCATAGTTCCTGCACTCCCGTTCGTTAGATAAAT 120  
DB 1585 GCGATCTGCTCTTTCCTTCCATCCCATAGTTCCTGCACTCCCGTTCGTTAGATAAAT 1641  
QY 121 ACGATACGGAGGGCTTACCATCTGGCCCGAGTCTGCAATGATACCGGAGACCCACG 180  
DB 1642 ACGATACGGAGGGCTTACCATCTGGCCCGAGTCTGCAATGATACCGGAGACCCACG 1700

```

QY 181 CTCACGGCTCCAGATTATCAGCAATAAACCAGCCAGCGGAGCGCCAGCGCAGAAG 240
Db 1701 CTCACGGCTCCAGATTATCAGCAATAAACCAGCCAGCGGAGCGCCAGCGCAGAAG 1760
QY 241 TGGTCTCTGCAACTTATCCGCTCCATCCAGTCTATTAAATTTGCGCGGAAGCTAGAGT 300
Db 1761 TGGTCTCTGCAACTTATCCGCTCCATCCAGTCTATTAAATTTGCGCGGAAGCTAGAGT 1820
QY 301 AAGTAGTTGCCAGTTAATAGTTTGGCCAAAGCTTTGTTGCCATTGCTGCGGCAATCGTGGT 360
Db 1821 AAGTAGTTGCCAGTTAATAGTTTGGCCAAAGCTTTGTTGCCATTGCTGCGGCAATCGTGGT 1880
QY 361 GTCACGCTCGCTGTTGGTAGTTCATTCAGCTCGGTTCCCAAGCATCAAGCGAGT 420
Db 1881 GTCACGCTCGCTGTTGGTAGTTCATTCAGCTCGGTTCCCAAGCATCAAGCGAGT 1940
QY 421 TACATGATCCCCCATGTTGTGCAAAAAGCGTTAGTCTCTCGCTCCCGATCGTTGT 480
Db 1941 TACATGATCCCCCATGTTGTGCAAAAAGCGTTAGTCTCTCGCTCCCGATCGTTGT 2000
QY 481 CAGAAGTAAAGTTGGCCGCGAG 500
Db 2001 CAGAAGTAAAGTTGGCCGCGAG 2020

RESULT 12
CVU47670
LOCUS
DEFINITION
Cloning vector pJDC406, 2783 bp DNA circular SYN 20-FEB-1996
coli, complete sequence.
U47670
U47670.1 GI:1197852
SOURCE
Cloning vector pJDC406
ORGANISM
Cloning vector pJDC406
other sequences; artificial sequences; vectors.
REFERENCE
1 (bases 1 to 2783)
Coleman,J., Green,P.J. and Inouye,M.
The use of RNAs complementary to specific mRNAs to regulate the
expression of individual bacterial genes
Cell 37 (2), 429-436 (1984)
JOURNAL
MEDLINE
PUBMED
84205677
6202422
REFERENCE
1 (bases 1 to 2783)
Coleman,J., Hirashima,A., Inokuchi,Y., Green,P.J. and Inouye,M.
A novel immune system against bacteriophage infection using
complementary RNA (micRNA)
Nature 315 (6020), 601-603 (1985)
JOURNAL
MEDLINE
PUBMED
85240542
2409446
REFERENCE
3 (bases 1 to 2783)
Coleman,J., Hirashima,A., Inokuchi,Y., Green,P.J. and Inouye,M.
Direct Submission
Submitted (30-JAN-1996) Jack Coleman, Biochemistry and Molecular
Biology, Louisiana State University - Medical Center, 1901 Perdido
St., New Orleans, LA 70112, USA
FEATURES
source
1..2783
/organism="Cloning vector pJDC406"
/mol_type="genomic DNA"
/specific_host="Escherichia coli"
/db_xref="taxon:45852"
/notes="antisense RNA expression vector"
misc_feature
1..417
/notes="Portable expression cassette on SmaI fragment; SmaI
expression cassette may be inserted in a second vector"
288..297
/notes="Antisense sequence may be inserted in unique XbaI
or EcoRI sites"
complement(1717..2577)
/codon_start=1
/transl_table=11
/product="beta-lactamase"

```

```

/protein_id="AAA88822.1"
/db_xref="GI:1197853"
/translation="MSIQHFRVALIPFFAAFLVPFAHPETLVKVKDAEDQLGARVGY
IELDLSGKILLESFRRPEPRPMWTFKLLCGAVLSRDAGQOLGRRIHYSONDLVE
YSPVTEKHLTDGKTVRELCSAAITMSDNTAANLLLTIGSPKELTAFLHNMGGHVTSL
DRWEPELNEAIENDESDITMPAAMATTLKLLTGELLTLASRQQLIDWHEADKVAQPL
LSKSLPAGFWFIADKSGAGERGSRGIIAALGPDGKPSRI VVIYITGSGATMDERNRQIA
EIGASLIKHW"
ORIGIN
Query Match 92.4%; Score 462; DB 12; Length 2783;
Best Local Similarity 99.2%; Pred. No. 1.3e-134;
Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;
QY 1 ATATATGAGTAAACTTTGGTCTGACAGTTACCAATGCTTAATCAGTGAGGACCATCTCTCA 60
Db 1691 ATATATGAGTAAACTTTGGTCTGACAGTTACCAATGCTTAATCAGTGAGGACCATCTCTCA 1750
QY 61 GCGATCTGTCTATTTCGTTTCATCCCATAGTTGCTGCAACTCCCGTCTGTTAGATAAAT 120
Db 1751 GCGATCTGTCTATTTCGTTTCAT-CCATAGTTGCTG- -ACTCCCGTCTGTTAGATAAAT 1807
QY 121 AGCATACGGGAGGCTTACCATCTGSCCCAGTGTGCAATGATACCGGGAAGACCCACG 180
Db 1808 AGCATACGGGAGGCTTACCATCTGSCCCAGTGTGCAATGATACCGG-AGACCCACG 1866
QY 181 CTCACCGGCTCCAGATTATCAGCAATAAACCAGCCAGCGGAGCGCCAGCGCAGAAG 240
Db 1867 CTCACCGGCTCCAGATTATCAGCAATAAACCAGCCAGCGGAGCGCCAGCGCAGAAG 1926
QY 241 TGGTCTCTGCAACTTATCCGCTCCATCCAGTCTATTAAATTTGTCGGGAAAGCTAGAGT 300
Db 1927 TGGTCTCTGCAACTTATCCGCTCCATCCAGTCTATTAAATTTGTCGGGAAAGCTAGAGT 1986
QY 301 AAGTAGTTGCCAGTTAATAGTTTGGCCAAAGCTTTGTTGCCATTGCTGCGGCAATCGTGGT 360
Db 1987 AAGTAGTTGCCAGTTAATAGTTTGGCCAAAGCTTTGTTGCCATTGCTGCGGCAATCGTGGT 2046
QY 361 GTCACGCTCGCTGTTGGTAGTTCATTCAGCTCGGTTCCCAAGCATCAAGCGAGT 420
Db 2047 GTCACGCTCGCTGTTGGTAGTTCATTCAGCTCGGTTCCCAAGCATCAAGCGAGT 2106
QY 421 TACATGATCCCCCATGTTGTGCAAAAAGCGTTAGTCTCTCGCTCCCGATCGTTGT 480
Db 2107 TACATGATCCCCCATGTTGTGCAAAAAGCGTTAGTCTCTCGCTCCCGATCGTTGT 2166
QY 481 CAGAAGTAAAGTTGGCCGCGAG 500
Db 2167 CAGAAGTAAAGTTGGCCGCGAG 2186

RESULT 13
SYNOMPA/C
LOCUS
DEFINITION
Cloning vector DNA, clone pTO-N.
ACCESSION
M59367 M34008
VERSION
M59367.1 GI:208909
KEYWORDS
unidentified cloning vector
SOURCE
unidentified cloning vector
ORGANISM
unidentified cloning vector
other sequences; artificial sequences; vectors.
REFERENCE
1 (bases 1 to 2846)
Deng,T.L., Noel,J.P. and Tsai,M.D.
A novel expression vector for high-level synthesis and secretion of
foreign proteins in Escherichia coli: overproduction of bovine
pancreatic phospholipase A2
Gene 93 (2), 229-234 (1990)
JOURNAL
MEDLINE
PUBMED
91033032
2227436
COMMENT
Original source text: Cloning vector DNA, clone pTO-N.
FEATURES
source
1..2846
/organism="unidentified cloning vector"

```

```

Query Match 92.4%; Score 462; DB 6; Length 2870;
Best Local Similarity 99.2%; Pred. No. 1.3e-134;
Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;

promoter
misc_feature
ORIGIN
Query Match 92.4%; Score 462; DB 12; Length 2846;
Best Local Similarity 99.2%; Pred. No. 1.3e-134;
Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;

1 ATATATGAGTAAACTTGGTCTGACAGTTACCAATGCTTAATCAGTGAGGACCTATCTCA 60
1394 ATATATGAGTAAACTTGGTCTGACAGTTACCAATGCTTAATCAGTGAGGACCTATCTCA 1335
61 GCGATCTGCTATTTCCGTTCCATCCCATAGTTGCTGCAACTCCCGCTCGTGTAGATAACT 120
1334 GCGATCTGCTATTTCCGTTCCAT - CCATAGTTGCTG - ACTCCCGCTCGTGTAGATAACT 1278
121 ACGATACGGAGGGCTTACCATCTGGCCCCAGTGTGCAATGATACCGGAAGACCCACG 180
1277 ACGATACGGAGGGCTTACCATCTGGCCCCAGTGTGCAATGATACCGCG - AGACCCACG 1219
181 CTCACGGCTCCAGATTTATCAGCAATAAACACGAGCCGAGGCGGAGCGCAGAG 240
1218 CTCACGGCTCCAGATTTATCAGCAATAAACACGAGCCGAGGCGGAGCGCAGAG 1159
241 TGGTCTGCAACTTTATCCGCTCCATCCAGTCTATTAATTTGTCGGGAAGCTAGAGT 300
1158 TGGTCTGCAACTTTATCCGCTCCATCCAGTCTATTAATTTGTCGGGAAGCTAGAGT 1099
301 AAGTAGTTCGCCAGTTAATAGTTGCGCAACGTTGTCGCAATGATACCGGAAGACCCACG 360
1098 AAGTAGTTCGCCAGTTAATAGTTGCGCAACGTTGTCGCAATGATACCGGCAATCGTGT 1039
361 GTCACGCTCGCTGTTGGTATGGCTTCATTCAGTCCGGTTCCTCCAGATCAAGGCGAGT 420
1038 GTCACGCTCGCTGTTGGTATGGCTTCATTCAGTCCGGTTCCTCCAGATCAAGGCGAGT 979
421 TACATGATCCCCCATGTTGTGCAAAAAGCGGTAGTCTCTCGTCTCCGATCGTTGT 480
978 TACATGATCCCCCATGTTGTGCAAAAAGCGGTAGTCTCTCGTCTCCGATCGTTGT 919
481 CAGAAGTAAGTTGCCCGCAG 500
918 CAGAAGTAAGTTGCCCGCAG 899

RESULT 14
AX107930 2870 bp DNA linear PAT 30-APR-2001
LOCUS
DEFINITION
Sequence 58 from Patent WO0125466.
ACCESSION
AX107930
VERSION
AX107930.1 GI:13923313
KEYWORDS
synthetic construct
SOURCE
synthetic construct
other sequences; artificial sequences.
REFERENCE
1.
AUTHORS
Slingsby, J., Kingsman, S.M., Rohll, J.O. and Slade, A.O.
TITLE
Producer cell for the production of retroviral vectors
JOURNAL
Patent: WO 0125466-A 58 12-APR-2001;
Oxford Biomedica (UK) Limited (GB)
LOCATION/Qualifiers
1. .2870
/organism="synthetic construct"
/mol_type="unassigned DNA"
/db_xref="taxon:32630"
/note="Synthetic sequence"
ORIGIN
Query Match 92.4%; Score 462; DB 12; Length 2846;
Best Local Similarity 99.2%; Pred. No. 1.3e-134;
Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;

1 ATATATGAGTAAACTTGGTCTGACAGTTACCAATGCTTAATCAGTGAGGACCTATCTCA 60
1490 ATATATGAGTAAACTTGGTCTGACAGTTACCAATGCTTAATCAGTGAGGACCTATCTCA 1549
61 GCGATCTGCTATTTCCGTTCCATCCCATAGTTGCTGCAACTCCCGCTCGTGTAGATAACT 120

```



```

|||||
Db 1550 GCATCTGTCTATTTCGTTTCAT - CCATAGTTGCTG - ACTCCCGTCGTAGATAACT 1606
QY 121 ACGATACGGAGGGCTTACCATCTGGCCCCAGTCTGCAATGATACCGCGAAGACCCACG 180
Db 1607 ACCATACGGAGGGCTTACCATCTGGCCCCAGTCTGCAATGATACCGCG - AGACCCACG 1665
QY 181 CTCACGGCTCCAGATTATCAGCAATAAACCGAGCCAGCGAAGCGCGCAGAAG 240
Db 1666 CTCACGGCTCCAGATTATCAGCAATAAACCGAGCCAGCGAAGCGCGCAGAAG 1725
QY 241 TGGTCTCGCAACTTTATCCGCTCCATCCAGTCTATTAAATTGTTGCCGGAAGCTAGAGT 300
Db 1726 TGGTCTCGCAACTTTATCCGCTCCATCCAGTCTATTAAATTGTTGCCGGAAGCTAGAGT 1785
QY 301 AAGTAGTTCCGCCAGTTAATAATGTTGGCCAACTGTTGTCATTTGTCAGGCAATCGTGGT 360
Db 1786 AAGTAGTTCCGCCAGTTAATAATGTTGGCCAACTGTTGTCATTTGTCAGGCAATCGTGGT 1845
QY 361 GTCACGCTCGTCTGTTGGTATGGCTTCATTTCAGCTCCGGTTCCCAACGATCAAGGCGAGT 420
Db 1846 GTCACGCTCGTCTGTTGGTATGGCTTCATTTCAGCTCCGGTTCCCAACGATCAAGGCGAGT 1905
QY 421 TACATGATCCCCCATGTTGTCAAAAGCGGTTAGCTCCTTCGGTCTCCGATCGTTGT 480
Db 1906 TACATGATCCCCCATGTTGTCAAAAGCGGTTAGCTCCTTCGGTCTCCGATCGTTGT 1965
QY 481 CAGAAGTAAGTTGGCGCAG 500
Db 1966 CAGAAGTAAGTTGGCGCAG 1985

```

Search completed: April 29, 2005, 04:24:22  
Job time : 2579 secs

**THIS PAGE BLANK (USPTO)**

GenCore version 5.1.6  
Copyright (c) 1993 - 2005 CompuGen Ltd.

OM nucleic - nucleic search, using sw model

Run on: April 28, 2005, 18:49:09 ; Search time 425 Seconds  
(without alignments)  
6964.402 Million cell updates/sec

Title: US-10-043-160-5\_COPY\_1\_500

Perfect score: 500

Sequence: 1 atatagtgtaaaacttggtc.....cagaagtaagttggccgcag 500

Scoring table: IDENTITY NUC

Gapop 10.0 , Gapext 1.0

Searched: 4390206 seqs, 2959870667 residues

Total number of hits satisfying chosen parameters: 8780412

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : N Geneseq\_16Dec04:\*

1: Geneseqn1980s:\*

2: Geneseqn1990s:\*

3: Geneseqn2000s:\*

4: Geneseqn2001as:\*

5: Geneseqn2001bs:\*

6: Geneseqn2002as:\*

7: Geneseqn2002bs:\*

8: Geneseqn2003as:\*

9: Geneseqn2003bs:\*

10: Geneseqn2003cs:\*

11: Geneseqn2003ds:\*

12: Geneseqn2004as:\*

13: Geneseqn2004bs:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

| Result No. | Score | Query Match | Length | ID         | Description        |
|------------|-------|-------------|--------|------------|--------------------|
| 1          | 500   | 100.0       | 43226  | 2 AAX60263 | Aax60263 Nucleic a |
| 2          | 462   | 92.4        | 1086   | 4 AAS47078 | Aas47078 DNA seque |
| 3          | 462   | 92.4        | 2022   | 4 AAS41766 | Aas41766 Genomic s |
| 4          | 462   | 92.4        | 2022   | 4 AAS41810 | Aas41810 Genomic s |
| 5          | 462   | 92.4        | 2022   | 4 AAS41859 | Aas41859 Genomic s |
| 6          | 462   | 92.4        | 2022   | 4 AAK59615 | Aak59615 Human imm |
| 7          | 462   | 92.4        | 2022   | 4 AAK5438  | Aak5438 Human imm  |
| 8          | 462   | 92.4        | 2022   | 4 AAK5488  | Aak5488 Human imm  |
| 9          | 462   | 92.4        | 2039   | 1 AAN91727 | Aan91727 ss Coding |
| 10         | 462   | 92.4        | 2187   | 3 AAI14722 | Aai14722 Nucleotid |
| 11         | 462   | 92.4        | 2212   | 4 AAS41826 | Aas41826 Genomic s |
| 12         | 462   | 92.4        | 2212   | 4 AAS41782 | Aas41782 Genomic s |
| 13         | 462   | 92.4        | 2212   | 4 AAS41875 | Aas41875 Genomic s |
| 14         | 462   | 92.4        | 2212   | 4 AAK5505  | Aak5505 Human imm  |
| 15         | 462   | 92.4        | 2212   | 4 AAK59629 | Aak59629 Human imm |
| 16         | 462   | 92.4        | 2212   | 4 AAK59629 | Aak59629 Human imm |
| 17         | 462   | 92.4        | 2212   | 4 AAK5455  | Aak5455 Human imm  |
| 18         | 462   | 92.4        | 2212   | 4 AAL02889 | Aal02889 Human rep |
| 19         | 462   | 92.4        | 2212   | 4 AAL02919 | Aal02919 Human rep |
| 20         | 462   | 92.4        | 2213   | 4 AAS27796 | Aas27796 DNA encod |
|            | 462   | 92.4        | 2213   | 4 AAS27802 | Aas27802 DNA encod |

# ALIGNMENTS

## RESULT 1

AAX60263

ID AAX60263 standard; DNA; 43226 BP.

XX AAX60263;

DT 12-AUG-1999 (first entry)

XX Nucleic acid sequence from C121 gene of system B of chicken MHC.

XX Resistance: tumour development; Marek disease tumour; chicken; system B;  
XX system Rfp-Y; poultry major histocompatibility complex; MHC;  
XX class II B-L gene; gene 17.5; gene B-FIV; class I; genotype;  
XX selection; breeding; virus-induced tumour; C121 gene; ss.

XX Gallus sp.

XX FR2771422-A1.

XX 28-MAY-1999.

XX 21-NOV-1997; 97FR-00014669.

XX 21-NOV-1997; 97FR-00014669.

XX (CNRS ) CNRS CENT NAT RECH SCI.

XX WPI; 1999-329699/28.

XX Chicken nucleic acid involved in controlling tumor susceptibility.

XX Claim 2; Fig 5; 49pp; French.

XX The specification describes nucleic acid sequences from genes (or related regions) that encode proteins involved in controlling resistance or susceptibility to development of tumours (e.g. Marek disease tumours) in chickens. The nucleic acid sequences include sequences from genes of systems B or Rfp-Y of the poultry major histocompatibility complex (MHC), other than genes of class II B-L and genes 17.5, 12.3 or B-FIV of class I. The nucleic acid sequences are used to genotype poultry, particularly to select (for breeding) birds resistant to virus-induced tumours. The present sequence represents a nucleic acid sequence from a gene of system B

|      |     |      |      |             |                    |
|------|-----|------|------|-------------|--------------------|
| C 21 | 462 | 92.4 | 2213 | 4 AAS41818  | Aas41818 Genomic s |
| C 22 | 462 | 92.4 | 2213 | 4 AAS41867  | Aas41867 Genomic s |
| C 23 | 462 | 92.4 | 2213 | 4 AAS41776  | Aas41776 Genomic s |
| C 24 | 462 | 92.4 | 2213 | 4 AAK85447  | Aak85447 Human imm |
| C 25 | 462 | 92.4 | 2213 | 4 AAK69622  | Aak69622 Human imm |
| C 26 | 462 | 92.4 | 2213 | 4 AAK59623  | Aak59623 Human imm |
| C 27 | 462 | 92.4 | 2213 | 4 AAK5446   | Aak5446 Human imm  |
| C 28 | 462 | 92.4 | 2213 | 4 AAK85496  | Aak85496 Human imm |
| C 29 | 462 | 92.4 | 2213 | 4 AAK85497  | Aak85497 Human imm |
| C 30 | 462 | 92.4 | 2213 | 4 AAL02882  | Aal02882 Human rep |
| C 31 | 462 | 92.4 | 2213 | 4 AAL02884  | Aal02884 Human rep |
| C 32 | 462 | 92.4 | 2213 | 4 AAL02912  | Aal02912 Human rep |
| C 33 | 462 | 92.4 | 2213 | 4 AAL02914  | Aal02914 Human rep |
| C 34 | 462 | 92.4 | 2213 | 10 ADB94599 | Adb94599 Novel hum |
| C 35 | 462 | 92.4 | 2213 | 10 ADB94605 | Adb94605 Novel hum |
| C 36 | 462 | 92.4 | 2522 | 2 AAQ11202  | Aaq11202 Plasmid p |
| C 37 | 462 | 92.4 | 2583 | 2 AAQ46606  | Aaq46606 Plasmid p |
| C 38 | 462 | 92.4 | 2731 | 3 AAI14802  | Aai14802 Nucleotid |
| C 39 | 462 | 92.4 | 2870 | 4 AAF83095  | Aaf83095 Nucleotid |
| C 40 | 462 | 92.4 | 3003 | 2 AAQ05745  | Aaq05745 Plasmid p |
| C 41 | 462 | 92.4 | 3097 | 4 AAF83096  | Aaf83096 Nucleotid |
| C 42 | 462 | 92.4 | 3122 | 2 AAV12724  | Aav12724 Plasmid p |
| C 43 | 462 | 92.4 | 3122 | 2 AAV39219  | Aav39219 Plasmid p |
| C 44 | 462 | 92.4 | 3122 | 2 AA222063  | Aaz22063 Nucleotid |
| C 45 | 462 | 92.4 | 3158 | 6 ABK11528  | Abk11528 Human-der |

xx  
SQ Sequence 43226 BP; 10365 A; 10522 C; 11244 G; 10981 T; 0 U; 114 Other;  
Query Match 100.0%; Score 500; DB 2; Length 43226;  
Best Local Similarity 100.0%; Pred. No. 8.4e-122;  
Matches 500; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
QY 1 ATATATGAGTAAACTTGGCTCTGACAGTTACCAATGCTTAATCAGTAGAGGACCTATCTCA 60  
DB 1 ATATATGAGTAAACTTGGCTCTGACAGTTACCAATGCTTAATCAGTAGAGGACCTATCTCA 60  
QY 61 GCATCTGCTTATTTCTTATCCATCCATAGTGTGCTGCAACTCCCGCTCGTGTAGATAACT 120  
DB 61 GCATCTGCTTATTTCTTATCCATCCATAGTGTGCTGCAACTCCCGCTCGTGTAGATAACT 120  
QY 121 ACATATGAGGAGGCTTACCATCTGGCCCGAGTGTGCTGCAATGATACCGCAAGCCACG 180  
DB 121 ACATATGAGGAGGCTTACCATCTGGCCCGAGTGTGCTGCAATGATACCGCAAGCCACG 180  
QY 181 CTCACCGGCTCCAGATTTATCAGCAATAAACACGAGCGGAGGCGGAGCGCAGAG 240  
DB 181 CTCACCGGCTCCAGATTTATCAGCAATAAACACGAGCGGAGGCGGAGCGCAGAG 240  
QY 241 TGGTCTCTGCACTTTATCCGCTTCCATCCAGTCTTATTAATTTGTCGGGAGAGCTAGAGT 300  
DB 241 TGGTCTCTGCACTTTATCCGCTTCCATCCAGTCTTATTAATTTGTCGGGAGAGCTAGAGT 300  
QY 301 AAGTAGTTCGCCAGTTAAATGTTTGGCAACGTTGTCATGCTGCGGACATCGTGT 360  
DB 301 AAGTAGTTCGCCAGTTAAATGTTTGGCAACGTTGTCATGCTGCGGACATCGTGT 360  
QY 361 GTCACGCTCGTCTGTTGGTATGGCTTCATTCAGCTCCGTTCCCAACGATCAAGGCGAGT 420  
DB 361 GTCACGCTCGTCTGTTGGTATGGCTTCATTCAGCTCCGTTCCCAACGATCAAGGCGAGT 420  
QY 421 TACATGATCCCCATGTTGTGCAAAAAAGCGTTAGCTCTTCCGTTCTCCGATCGTTGT 480  
DB 421 TACATGATCCCCATGTTGTGCAAAAAAGCGTTAGCTCTTCCGTTCTCCGATCGTTGT 480  
QY 481 CAGAAGTAAAGTTGGCGCGAG 500  
DB 481 CAGAAGTAAAGTTGGCGCGAG 500

RESULT 2  
AAH47078  
ID AAH47078 standard; DNA; 1086 BP.  
XX AC AAH47078;  
XX 29-OCT-2001 (first entry)  
XX DNA sequence of ampicillin resistance gene from plasmid pBR322.  
XX Agrobacterium; oncogene; transformation; T-DNA; Ti-plasmid; RRS;  
KW recombinase recognition site; ampicillin resistance; ds.  
XX Synthetic.  
XX WO200159086-A2.  
XX 16-AUG-2001.  
XX 07-FEB-2001; 2001WO-CA000136.  
XX 08-FEB-2000; 2000US-0181063P.  
XX (SAKA-) SAKATA SEED CORP.  
XX Fabijanski SF, Robert L, Schernthaner J, Wu T;  
XX WPI; 2001-514663/56.  
XX

PT Producing transformed plant, involves transforming plant cells with  
PT Agrobacterium oncogene-construct, selecting transformed cells, negating  
PT oncogene effect and regenerating morphologically normal transformed  
XX plants.  
XX Example 1; Page 126; 131pp; English.  
XX The invention relates to a method of preparing a transformed plant that  
XX comprises introducing into plant cells, a construct of at least one  
XX Agrobacterium oncogene (II), whose expression enables the transformed  
XX cells (TC) to grow under conditions insufficient for the growth of  
XX untransformed cells, selecting TC, negating the effect of (II) in TC and  
XX regenerating morphologically normal transformed plants from TC. The DNA  
XX vector of the invention comprises in 5'-3' direction, a DNA sequence  
XX homologous to a left portion of the right or left border region of the T-  
XX DNA region of a Ti-plasmid, a recombinase recognition site (RRS), and a  
XX region of DNA homologous to a right portion of the right or left border  
XX region of the T-DNA region of a Ti-plasmid; and is selected from pRBC-1,  
XX pLBC-1 or pLBC-2. The method is useful for producing transformed plants,  
XX and for development of plants with novel traits and novel recombinant  
XX constructs. The present sequence represents a DNA sequence of ampicillin  
XX resistance gene from plasmid pBR322

SQ Sequence 1086 BP; 286 A; 265 C; 242 G; 293 T; 0 U; 0 Other;  
Query Match 92.4%; Score 462; DB 4; Length 1086;  
Best Local Similarity 99.2%; Pred. No. 6.2e-112;  
Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;  
QY 1 ATATATGAGTAAACTTGGCTCTGACAGTTACCAATGCTTAATCAGTAGAGGACCTATCTCA 60  
DB 3 ATATATGAGTAAACTTGGCTCTGACAGTTACCAATGCTTAATCAGTAGAGGACCTATCTCA 62  
QY 61 GCATCTGCTTATTTCTTATCCATCCATAGTGTGCTGCAACTCCCGCTCGTGTAGATAACT 120  
DB 63 GCATCTGCTTATTTCTTATCCATCCATAGTGTGCTGCAACTCCCGCTCGTGTAGATAACT 119  
QY 121 ACATATGAGGAGGCTTACCATCTGGCCCGAGTGTGCTGCAATGATACCGCAAGCCACG 180  
DB 120 ACATATGAGGAGGCTTACCATCTGGCCCGAGTGTGCTGCAATGATACCGCAAG 178  
QY 181 CTCACCGGCTCCAGATTTATCAGCAATAAACACGAGCGGAGGCGGAGCGCAGAG 240  
DB 179 CTCACCGGCTCCAGATTTATCAGCAATAAACACGAGCGGAGGCGGAGCGCAGAG 238  
QY 241 TGGTCTCTGCACTTTATCCGCTTCCATCCAGTCTTATTAATTTGTCGGGAGAGCTAGAGT 300  
DB 239 TGGTCTCTGCACTTTATCCGCTTCCATCCAGTCTTATTAATTTGTCGGGAGAGCTAGAGT 298  
QY 301 AAGTAGTTCGCCAGTTAAATGAGTTTGGCAACGTTGTCATGCTGAGGATCGTGT 360  
DB 299 AAGTAGTTCGCCAGTTAAATGAGTTTGGCAACGTTGTCATGCTGAGGATCGTGT 358  
QY 361 GTCACGCTCGTCTGTTGGTATGGCTTCATTCAGCTCCGTTCCCAACGATCAAGGCGAGT 420  
DB 359 GTCACGCTCGTCTGTTGGTATGGCTTCATTCAGCTCCGTTCCCAACGATCAAGGCGAGT 418  
QY 421 TACATGATCCCCATGTTGTGCAAAAAAGCGTTAGCTCTTCCGTTCTCCGATCGTTGT 480  
DB 419 TACATGATCCCCATGTTGTGCAAAAAAGCGTTAGCTCTTCCGTTCTCCGATCGTTGT 478  
QY 481 CAGAAGTAAAGTTGGCGCGAG 500  
DB 479 CAGAAGTAAAGTTGGCGCGAG 498

RESULT 3  
AAS41766/c  
ID AAS41766 standard; DNA; 2022 BP.  
XX AC AAS41766;  
XX 17-DEC-2001 (first entry)  
XX

XX DE Genomic sequence #82 encoding novel human enzyme polypeptide.  
XX KW Human; oxidoreductase enzyme; transferase; hydrolase; lyase; isomerase;  
XX KW ligase; hyperproliferative disorder; immunodeficiency disorder;  
XX KW autoimmune disorder; neurological disorder; metabolic disorder;  
XX KW inflammatory disorder; cardiovascular disorder; reproductive disorder;  
XX KW blood-related disorder; infectious disorder; gene therapy; cytostatic;  
XX KW anti arthritic; nephrotropic; anticoagulant; ds.  
XX OS Homo sapiens.  
XX PN WO200155301-A2.  
XX PD 02-AUG-2001.  
XX PF 17-JAN-2001; 2001WO-US001239.  
XX PF 31-JAN-2000; 2000US-0179065P.  
XX PR 04-FEB-2000; 2000US-0180628P.  
XX PR 24-FEB-2000; 2000US-0184664P.  
XX PR 02-MAR-2000; 2000US-0186350P.  
XX PR 16-MAR-2000; 2000US-0189874P.  
XX PR 17-MAR-2000; 2000US-0190076P.  
XX PR 18-APR-2000; 2000US-0198123P.  
XX PR 19-MAY-2000; 2000US-0205515P.  
XX PR 07-JUN-2000; 2000US-0209467P.  
XX PR 28-JUN-2000; 2000US-0214886P.  
XX PR 30-JUN-2000; 2000US-0215135P.  
XX PR 07-JUL-2000; 2000US-0216647P.  
XX PR 07-JUL-2000; 2000US-0216880P.  
XX PR 11-JUL-2000; 2000US-0217487P.  
XX PR 11-JUL-2000; 2000US-0217496P.  
XX PR 14-JUL-2000; 2000US-0218290P.  
XX PR 26-JUL-2000; 2000US-0220963P.  
XX PR 26-JUL-2000; 2000US-0220964P.  
XX PR 14-AUG-2000; 2000US-0224518P.  
XX PR 14-AUG-2000; 2000US-0224519P.  
XX PR 14-AUG-2000; 2000US-0225213P.  
XX PR 14-AUG-2000; 2000US-0225214P.  
XX PR 14-AUG-2000; 2000US-0225266P.  
XX PR 14-AUG-2000; 2000US-0225267P.  
XX PR 14-AUG-2000; 2000US-0225268P.  
XX PR 14-AUG-2000; 2000US-0225270P.  
XX PR 14-AUG-2000; 2000US-0225447P.  
XX PR 14-AUG-2000; 2000US-0225757P.  
XX PR 14-AUG-2000; 2000US-0225758P.  
XX PR 14-AUG-2000; 2000US-0225759P.  
XX PR 18-AUG-2000; 2000US-0226279P.  
XX PR 22-AUG-2000; 2000US-0226681P.  
XX PR 22-AUG-2000; 2000US-0226868P.  
XX PR 23-AUG-2000; 2000US-0227182P.  
XX PR 23-AUG-2000; 2000US-0227009P.  
XX PR 30-AUG-2000; 2000US-0228924P.  
XX PR 01-SEP-2000; 2000US-0229287P.  
XX PR 01-SEP-2000; 2000US-0229343P.  
XX PR 01-SEP-2000; 2000US-0229344P.  
XX PR 01-SEP-2000; 2000US-0229345P.  
XX PR 05-SEP-2000; 2000US-0229509P.  
XX PR 05-SEP-2000; 2000US-0229513P.  
XX PR 06-SEP-2000; 2000US-0230437P.  
XX PR 06-SEP-2000; 2000US-0230438P.  
XX PR 08-SEP-2000; 2000US-0231342P.  
XX PR 08-SEP-2000; 2000US-0231343P.  
XX PR 08-SEP-2000; 2000US-0231444P.  
XX PR 08-SEP-2000; 2000US-0231413P.  
XX PR 08-SEP-2000; 2000US-0231414P.  
XX PR 08-SEP-2000; 2000US-0232080P.  
XX PR 08-SEP-2000; 2000US-0232081P.  
XX PR 12-SEP-2000; 2000US-0231968P.  
XX PR 14-SEP-2000; 2000US-0232397P.  
XX PR 14-SEP-2000; 2000US-0232398P.  
XX PR 14-SEP-2000; 2000US-0232399P.  
XX PR 14-SEP-2000; 2000US-0232400P.  
XX PR 14-SEP-2000; 2000US-0232401P.  
XX PR 14-SEP-2000; 2000US-0233063P.  
XX PR 14-SEP-2000; 2000US-0233064P.  
XX PR 14-SEP-2000; 2000US-0233065P.  
XX PR 21-SEP-2000; 2000US-0234223P.  
XX PR 21-SEP-2000; 2000US-0234274P.  
XX PR 25-SEP-2000; 2000US-0234997P.  
XX PR 25-SEP-2000; 2000US-0234998P.  
XX PR 26-SEP-2000; 2000US-0235484P.  
XX PR 27-SEP-2000; 2000US-0235834P.  
XX PR 27-SEP-2000; 2000US-0235836P.  
XX PR 29-SEP-2000; 2000US-0236327P.  
XX PR 29-SEP-2000; 2000US-0236367P.  
XX PR 29-SEP-2000; 2000US-0236368P.  
XX PR 29-SEP-2000; 2000US-0236369P.  
XX PR 29-SEP-2000; 2000US-0236370P.  
XX PR 02-OCT-2000; 2000US-0236802P.  
XX PR 02-OCT-2000; 2000US-0237037P.  
XX PR 02-OCT-2000; 2000US-0237038P.  
XX PR 02-OCT-2000; 2000US-0237039P.  
XX PR 02-OCT-2000; 2000US-0237040P.  
XX PR 13-OCT-2000; 2000US-0239355P.  
XX PR 13-OCT-2000; 2000US-0239337P.  
XX PR 20-OCT-2000; 2000US-0240960P.  
XX PR 20-OCT-2000; 2000US-0241221P.  
XX PR 20-OCT-2000; 2000US-0241785P.  
XX PR 20-OCT-2000; 2000US-0241786P.  
XX PR 20-OCT-2000; 2000US-0241787P.  
XX PR 20-OCT-2000; 2000US-0241808P.  
XX PR 20-OCT-2000; 2000US-0241809P.  
XX PR 01-NOV-2000; 2000US-0241826P.  
XX PR 08-NOV-2000; 2000US-0244617P.  
XX PR 08-NOV-2000; 2000US-0246474P.  
XX PR 08-NOV-2000; 2000US-0246475P.  
XX PR 08-NOV-2000; 2000US-0246476P.  
XX PR 08-NOV-2000; 2000US-0246477P.  
XX PR 08-NOV-2000; 2000US-0246478P.  
XX PR 08-NOV-2000; 2000US-0246523P.  
XX PR 08-NOV-2000; 2000US-0246524P.  
XX PR 08-NOV-2000; 2000US-0246609P.  
XX PR 08-NOV-2000; 2000US-0246525P.  
XX PR 08-NOV-2000; 2000US-0246526P.  
XX PR 08-NOV-2000; 2000US-0246527P.  
XX PR 08-NOV-2000; 2000US-0246528P.  
XX PR 08-NOV-2000; 2000US-0246532P.  
XX PR 08-NOV-2000; 2000US-0246609P.  
XX PR 08-NOV-2000; 2000US-0246610P.  
XX PR 08-NOV-2000; 2000US-0246611P.  
XX PR 17-NOV-2000; 2000US-0246613P.  
XX PR 17-NOV-2000; 2000US-0249207P.  
XX PR 17-NOV-2000; 2000US-0249208P.  
XX PR 17-NOV-2000; 2000US-0249209P.  
XX PR 17-NOV-2000; 2000US-0249210P.  
XX PR 17-NOV-2000; 2000US-0249211P.  
XX PR 17-NOV-2000; 2000US-0249212P.  
XX PR 17-NOV-2000; 2000US-0249213P.  
XX PR 17-NOV-2000; 2000US-0249214P.  
XX PR 17-NOV-2000; 2000US-0249215P.  
XX PR 17-NOV-2000; 2000US-0249216P.  
XX PR 17-NOV-2000; 2000US-0249217P.  
XX PR 17-NOV-2000; 2000US-0249218P.  
XX PR 17-NOV-2000; 2000US-0249244P.  
XX PR 17-NOV-2000; 2000US-0249245P.  
XX PR 17-NOV-2000; 2000US-0249264P.  
XX PR 17-NOV-2000; 2000US-0249265P.  
XX PR 17-NOV-2000; 2000US-0249297P.  
XX PR 17-NOV-2000; 2000US-0249299P.  
XX PR 01-DEC-2000; 2000US-0249300P.  
XX PR 01-DEC-2000; 2000US-0250160P.  
XX PR 05-DEC-2000; 2000US-0250391P.  
XX PR 05-DEC-2000; 2000US-0251030P.  
XX PR 05-DEC-2000; 2000US-0251988P.  
XX PR 05-DEC-2000; 2000US-0256719P.



PR 01-SEP-2000; 2000US-0229344P.  
PR 01-SEP-2000; 2000US-0229345P.  
PR 05-SEP-2000; 2000US-0229509P.  
PR 05-SEP-2000; 2000US-0229513P.  
PR 06-SEP-2000; 2000US-0230437P.  
PR 08-SEP-2000; 2000US-0230438P.  
PR 08-SEP-2000; 2000US-0231142P.  
PR 08-SEP-2000; 2000US-0231243P.  
PR 08-SEP-2000; 2000US-0231244P.  
PR 08-SEP-2000; 2000US-0231413P.  
PR 08-SEP-2000; 2000US-0231414P.  
PR 08-SEP-2000; 2000US-0232080P.  
PR 08-SEP-2000; 2000US-0232081P.  
PR 12-SEP-2000; 2000US-0231968P.  
PR 14-SEP-2000; 2000US-0232337P.  
PR 14-SEP-2000; 2000US-0232338P.  
PR 14-SEP-2000; 2000US-0232339P.  
PR 14-SEP-2000; 2000US-0232400P.  
PR 14-SEP-2000; 2000US-0232401P.  
PR 14-SEP-2000; 2000US-0233063P.  
PR 14-SEP-2000; 2000US-0233064P.  
PR 14-SEP-2000; 2000US-0233065P.  
PR 21-SEP-2000; 2000US-0234223P.  
PR 21-SEP-2000; 2000US-0234274P.  
PR 25-SEP-2000; 2000US-0234957P.  
PR 25-SEP-2000; 2000US-0234958P.  
PR 26-SEP-2000; 2000US-0235484P.  
PR 27-SEP-2000; 2000US-0235834P.  
PR 27-SEP-2000; 2000US-0235836P.  
PR 29-SEP-2000; 2000US-0236327P.  
PR 29-SEP-2000; 2000US-0236367P.  
PR 29-SEP-2000; 2000US-0236368P.  
PR 29-SEP-2000; 2000US-0236369P.  
PR 29-SEP-2000; 2000US-0236370P.  
PR 02-OCT-2000; 2000US-0236802P.  
PR 02-OCT-2000; 2000US-0237037P.  
PR 02-OCT-2000; 2000US-0237038P.  
PR 02-OCT-2000; 2000US-0237039P.  
PR 02-OCT-2000; 2000US-0237040P.  
PR 13-OCT-2000; 2000US-0239315P.  
PR 13-OCT-2000; 2000US-0239317P.  
PR 20-OCT-2000; 2000US-0240960P.  
PR 20-OCT-2000; 2000US-0241221P.  
PR 20-OCT-2000; 2000US-0241785P.  
PR 20-OCT-2000; 2000US-0241786P.  
PR 20-OCT-2000; 2000US-0241787P.  
PR 20-OCT-2000; 2000US-0241808P.  
PR 20-OCT-2000; 2000US-0241809P.  
PR 01-NOV-2000; 2000US-0244617P.  
PR 08-NOV-2000; 2000US-0246474P.  
PR 08-NOV-2000; 2000US-0246475P.  
PR 08-NOV-2000; 2000US-0246476P.  
PR 08-NOV-2000; 2000US-0246477P.  
PR 08-NOV-2000; 2000US-0246523P.  
PR 08-NOV-2000; 2000US-0246524P.  
PR 08-NOV-2000; 2000US-0246525P.  
PR 08-NOV-2000; 2000US-0246526P.  
PR 08-NOV-2000; 2000US-0246527P.  
PR 08-NOV-2000; 2000US-0246528P.  
PR 08-NOV-2000; 2000US-0246532P.  
PR 08-NOV-2000; 2000US-0246609P.  
PR 08-NOV-2000; 2000US-0246610P.  
PR 08-NOV-2000; 2000US-0246611P.  
PR 17-NOV-2000; 2000US-0249207P.  
PR 17-NOV-2000; 2000US-0249208P.  
PR 17-NOV-2000; 2000US-0249209P.  
PR 17-NOV-2000; 2000US-0249210P.  
PR 17-NOV-2000; 2000US-0249211P.  
PR 17-NOV-2000; 2000US-0249212P.  
PR 17-NOV-2000; 2000US-0249213P.  
PR 17-NOV-2000; 2000US-0249214P.  
PR 17-NOV-2000; 2000US-0249215P.  
PR 17-NOV-2000; 2000US-0249216P.  
PR 17-NOV-2000; 2000US-0249217P.  
PR 17-NOV-2000; 2000US-0249218P.  
PR 17-NOV-2000; 2000US-0249244P.  
PR 17-NOV-2000; 2000US-0249245P.  
PR 17-NOV-2000; 2000US-0249246P.  
PR 17-NOV-2000; 2000US-0249265P.  
PR 17-NOV-2000; 2000US-0249277P.  
PR 17-NOV-2000; 2000US-0249299P.  
PR 17-NOV-2000; 2000US-0249300P.  
PR 01-DEC-2000; 2000US-0250160P.  
PR 01-DEC-2000; 2000US-0250391P.  
PR 05-DEC-2000; 2000US-0251030P.  
PR 05-DEC-2000; 2000US-0251988P.  
PR 05-DEC-2000; 2000US-0256719P.  
PR 06-DEC-2000; 2000US-0251479P.  
PR 08-DEC-2000; 2000US-0251856P.  
PR 08-DEC-2000; 2000US-0251868P.  
PR 08-DEC-2000; 2000US-0251869P.  
PR 08-DEC-2000; 2000US-0251989P.  
PR 08-DEC-2000; 2000US-0251990P.  
PR 11-DEC-2000; 2000US-0254097P.  
PR 03-JAN-2001; 2001US-0259678P.  
XX  
PA (HUMA-) HUMAN GENOME SCI INC.  
XX  
XX Rosen CA, Barash SC, Ruben SM;  
PI  
XX  
XX WPI; 2001-465566/50.  
DR  
XX  
XX Novel polypeptides and polynucleotides useful for diagnosing, preventing,  
PT treating neural, immune system, muscular, reproductive, pulmonary,  
PT cardiovascular, renal, proliferative disorders and cancerous diseases.  
XX  
PS Disclosure; SEQ ID NO 1936; 1180pp; English.  
XX  
XX The present invention relates to the isolation of novel human enzyme  
CC polypeptides (AAU22915-AAU23814), and the cDNA and genomic sequences  
CC encoding them. The enzyme polypeptides of the invention may comprise the  
CC functional classes of oxidoreductases, transferases, hydrolases, lyases,  
CC isomerases or ligases. The sequences of the invention are useful in the  
CC diagnosis, treatment, prevention and/or prognosis of a wide range of  
CC disorders including hyperproliferative disorders (e.g. cancer),  
CC immunodeficiency disorders (e.g. AIDS) autoimmune disorders (e.g.  
CC arthritis), neurological disorders (e.g. Alzheimer's disease), metabolic  
CC disorders (e.g. phenylketonuria), inflammatory disorders (e.g. asthma),  
CC cardiovascular disorders (e.g. atherosclerosis), blood-related disorders  
CC (e.g. haemophilia), reproductive disorders (e.g. infertility) and  
CC infectious disorders (e.g. Influenza). The polynucleotides of the  
CC invention can also be used in gene therapy. AAS41685-AAS42192 represent  
CC DNA sequences encoding for the novel human enzyme polypeptides of the  
CC invention. Note: The sequence data for this patent did not form part of  
CC the printed specification, but was obtained in electronic format directly  
CC from WIPO at ftp.wipo.int/pub/published\_pct\_sequences  
XX  
SQ Sequence 2022 BP; 513 A; 478 C; 512 G; 518 T; 0 U; 1 Other;  
Query Match 92.4%; Score 462; DB 4; Length 2022;  
Best Local Similarity 99.2%; Pred. NO. 6.6e-112;  
Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;  
QY 1 ATATATGAGTAACTTGGTCTGACAGTTACCAATGCTTAATCAGTCAGGCGACCTATCTCA 60  
Db 1095 ATATATGAGTAACTTGGTCTGACAGTTACCAATGCTTAATCAGTCAGGCGACCTATCTCA 1036  
QY 61 GCGATCTGCTATTTTCGTTTCATCCCATAGTTCCTGCAACTCCCGTCGTTAGATAACT 120  
Db 1035 GCGATCTGCTATTTTCGTTTCAT-CCATAGTTGCTG- ACTCCCGTCGTTAGATAACT 979  
QY 121 ACGATACGGAGGCTTACCATCTGCCCCAGTCGTCGATGATACCGGAGACCCACG 180

978 ACATACGGAGGGCTTACATCTGSCCCAGTGCTGCAATGATACCGCG-AGACCCACG 920  
181 CTCACGGCTCCAGATTATCAGCAATAAACACGAGCCGGAAGGCGGAGGAG 240  
919 CTCACGGCTCCAGATTATCAGCAATAAACACGAGCCGGAAGGCGGAGGAG 860  
241 TGTCTCTGCAACTTTATCGGCTCCATCCAGTCTATTAATTTGTCGGGAGCTAGGT 300  
859 TGTCTCTGCAACTTTATCGGCTCCATCCAGTCTATTAATTTGTCGGGAGCTAGGT 800  
301 AAGTAGTTCGCGAGTTAAATAGTTTGGCAACGTTGTCATTCGTCAGGCAATCGTGT 360  
799 AAGTAGTTCGCGAGTTAAATAGTTTGGCAACGTTGTCATTCGTCAGGCAATCGTGT 740  
361 GTCACGCTCGTCTGTTTGGTATGCGTTTCATTCAGTCCGTTCCCAAGCATCAAGGCGGT 420  
739 GTCACGCTCGTCTGTTTGGTATGCGTTTCATTCAGTCCGTTCCCAAGCATCAAGGCGGT 680  
421 TACATGATCCCCATGTTGCAAAAAGCGGTTAGTCTCTTCGTCCTCCGATCGTTCT 480  
679 TACATGATCCCCATGTTGCAAAAAGCGGTTAGTCTCTTCGTCCTCCGATCGTTCT 620  
481 CAGAAGTAAGTTGGCCGCGAG 500  
619 CAGAAGTAAGTTGGCCGCGAG 600

RESULT 5

AAS41859/c

ID AAS41859 standard; DNA; 2022 BP.

XX AAS41859;

DT 17-DEC-2001 (first entry)

DE Genomic sequence #175 encoding novel human enzyme polypeptide.

XX Human; oxidoreductase enzyme; transferase; hydrolase; lyase; isomerase;  
KW ligase; hyperproliferative disorder; immunodeficiency disorder;  
KW autoimmune disorder; neurological disorder; metabolic disorder;  
KW inflammatory disorder; cardiovascular disorder; reproductive disorder;  
KW blood-related disorder; infectious disorder; gene therapy; cytostatic;  
KW anti arthritic; nephrotropic; anticoagulant; ds.

OS Homo sapiens.

XX WO200155301-A2.

XX 02-AUG-2001.

XX 17-JAN-2001; 2001WO-US001239.

XX 31-JAN-2000; 2000US-0179065P.

XX 04-FEB-2000; 2000US-0180628P.

XX 24-FEB-2000; 2000US-0184664P.

XX 02-MAR-2000; 2000US-0186350P.

XX 16-MAR-2000; 2000US-0189874P.

XX 17-MAR-2000; 2000US-0190076P.

XX 18-MAR-2000; 2000US-0198123P.

XX 19-MAY-2000; 2000US-0205515P.

XX 07-JUN-2000; 2000US-0209467P.

XX 28-JUN-2000; 2000US-0214886P.

XX 30-JUN-2000; 2000US-0215135P.

XX 07-JUL-2000; 2000US-0216647P.

XX 07-JUL-2000; 2000US-0216880P.

XX 11-JUL-2000; 2000US-0217487P.

PR 14-AUG-2000; 2000US-0225214P.  
PR 14-AUG-2000; 2000US-0225266P.  
PR 14-AUG-2000; 2000US-0225267P.  
PR 14-AUG-2000; 2000US-0225268P.  
PR 14-AUG-2000; 2000US-0225270P.  
PR 14-AUG-2000; 2000US-0225447P.  
PR 14-AUG-2000; 2000US-0225757P.  
PR 14-AUG-2000; 2000US-0225758P.  
PR 14-AUG-2000; 2000US-0225759P.  
PR 18-AUG-2000; 2000US-0226279P.  
PR 22-AUG-2000; 2000US-0226681P.  
PR 22-AUG-2000; 2000US-0226686P.  
PR 22-AUG-2000; 2000US-0227182P.  
PR 23-AUG-2000; 2000US-0227009P.  
PR 30-AUG-2000; 2000US-0228924P.  
PR 01-SEP-2000; 2000US-0229287P.  
PR 01-SEP-2000; 2000US-0229343P.  
PR 01-SEP-2000; 2000US-0229344P.  
PR 01-SEP-2000; 2000US-0229345P.  
PR 05-SEP-2000; 2000US-0229509P.  
PR 05-SEP-2000; 2000US-0229513P.  
PR 06-SEP-2000; 2000US-0230437P.  
PR 06-SEP-2000; 2000US-0230438P.  
PR 08-SEP-2000; 2000US-0231242P.  
PR 08-SEP-2000; 2000US-0231243P.  
PR 08-SEP-2000; 2000US-0231244P.  
PR 08-SEP-2000; 2000US-0231413P.  
PR 08-SEP-2000; 2000US-0231414P.  
PR 08-SEP-2000; 2000US-0232080P.  
PR 08-SEP-2000; 2000US-0232081P.  
PR 12-SEP-2000; 2000US-0231968P.  
PR 14-SEP-2000; 2000US-0232397P.  
PR 14-SEP-2000; 2000US-0232398P.  
PR 14-SEP-2000; 2000US-0232399P.  
PR 14-SEP-2000; 2000US-0232400P.  
PR 14-SEP-2000; 2000US-0232401P.  
PR 14-SEP-2000; 2000US-0233063P.  
PR 14-SEP-2000; 2000US-0233064P.  
PR 14-SEP-2000; 2000US-0233065P.  
PR 21-SEP-2000; 2000US-0234223P.  
PR 21-SEP-2000; 2000US-0234274P.  
PR 25-SEP-2000; 2000US-0234997P.  
PR 25-SEP-2000; 2000US-0234998P.  
PR 26-SEP-2000; 2000US-0235484P.  
PR 27-SEP-2000; 2000US-0235834P.  
PR 27-SEP-2000; 2000US-0235836P.  
PR 29-SEP-2000; 2000US-0236327P.  
PR 29-SEP-2000; 2000US-0236367P.  
PR 29-SEP-2000; 2000US-0236368P.  
PR 29-SEP-2000; 2000US-0236369P.  
PR 29-SEP-2000; 2000US-0236370P.  
PR 02-OCT-2000; 2000US-0236802P.  
PR 02-OCT-2000; 2000US-0237037P.  
PR 02-OCT-2000; 2000US-0237038P.  
PR 02-OCT-2000; 2000US-0237039P.  
PR 02-OCT-2000; 2000US-0237040P.  
PR 13-OCT-2000; 2000US-0239935P.  
PR 13-OCT-2000; 2000US-0239937P.  
PR 20-OCT-2000; 2000US-0240960P.  
PR 20-OCT-2000; 2000US-0241221P.  
PR 20-OCT-2000; 2000US-0241785P.  
PR 20-OCT-2000; 2000US-0241786P.  
PR 20-OCT-2000; 2000US-0241787P.  
PR 20-OCT-2000; 2000US-0241808P.  
PR 20-OCT-2000; 2000US-0241809P.  
PR 20-OCT-2000; 2000US-0241826P.  
PR 01-NOV-2000; 2000US-0244617P.  
PR 08-NOV-2000; 2000US-0246474P.  
PR 08-NOV-2000; 2000US-0246475P.  
PR 08-NOV-2000; 2000US-0246476P.  
PR 08-NOV-2000; 2000US-0246477P.  
PR 08-NOV-2000; 2000US-0246478P.  
PR 08-NOV-2000; 2000US-0246523P.



08-NOV-2000; 2000US-0246524P.  
 08-NOV-2000; 2000US-0246525P.  
 08-NOV-2000; 2000US-0246526P.  
 08-NOV-2000; 2000US-0246527P.  
 08-NOV-2000; 2000US-0246528P.  
 08-NOV-2000; 2000US-0246532P.  
 08-NOV-2000; 2000US-0246609P.  
 08-NOV-2000; 2000US-0246610P.  
 08-NOV-2000; 2000US-0246611P.  
 08-NOV-2000; 2000US-0246613P.  
 17-NOV-2000; 2000US-0249207P.  
 17-NOV-2000; 2000US-0249208P.  
 17-NOV-2000; 2000US-0249209P.  
 17-NOV-2000; 2000US-0249210P.  
 17-NOV-2000; 2000US-0249211P.  
 17-NOV-2000; 2000US-0249212P.  
 17-NOV-2000; 2000US-0249213P.  
 17-NOV-2000; 2000US-0249214P.  
 17-NOV-2000; 2000US-0249215P.  
 17-NOV-2000; 2000US-0249216P.  
 17-NOV-2000; 2000US-0249217P.  
 17-NOV-2000; 2000US-0249218P.  
 17-NOV-2000; 2000US-0249244P.  
 17-NOV-2000; 2000US-0249245P.  
 17-NOV-2000; 2000US-0249264P.  
 17-NOV-2000; 2000US-0249265P.  
 17-NOV-2000; 2000US-0249297P.  
 17-NOV-2000; 2000US-0249299P.  
 17-NOV-2000; 2000US-0249300P.  
 01-DEC-2000; 2000US-0250160P.  
 01-DEC-2000; 2000US-0250391P.  
 05-DEC-2000; 2000US-0251030P.  
 05-DEC-2000; 2000US-0251988P.  
 05-DEC-2000; 2000US-0256719P.  
 06-DEC-2000; 2000US-0251479P.  
 08-DEC-2000; 2000US-0251856P.  
 08-DEC-2000; 2000US-0251868P.  
 08-DEC-2000; 2000US-0251869P.  
 08-DEC-2000; 2000US-0251989P.  
 08-DEC-2000; 2000US-0251990P.  
 11-DEC-2000; 2000US-0254097P.  
 05-JAN-2001; 2001US-0259678P.  
 (HUMA-) HUMAN GENOME SCI INC.  
 Rosen CA, Barash SC, Ruben SM;  
 WPI; 2001-465566/50.  
 Novel polypeptides and polynucleotides useful for diagnosing, preventing, treating neural, immune system, muscular, reproductive, pulmonary, cardiovascular, renal, proliferative disorders and cancerous diseases.  
 Disclosure; SEQ ID NO 1985; 1180pp; English.  
 The present invention relates to the isolation of novel human enzyme polypeptides (AAU22915-AAU23814), and the cDNA and genomic sequences encoding them. The enzyme polypeptides of the invention may comprise the functional classes of oxidoreductases, transferases, hydrolases, lyases, isomerases or ligases. The sequences of the invention are useful in the diagnosis, treatment, prevention and/or prognosis of a wide range of disorders including hyperproliferative disorders (e.g. cancer), immunodeficiency disorders (e.g. AIDS) autoimmune disorders (e.g. arthritis), neurological disorders (e.g. Alzheimer's disease), metabolic disorders (e.g. phenylketonuria), inflammatory disorders (e.g. asthma), cardiovascular disorders (e.g. atherosclerosis), blood-related disorders (e.g. haemophilia), reproductive disorders (e.g. infertility) and infectious disorders (e.g. Influenza). The polynucleotides of the invention can also be used in gene therapy. AA541685-AA542192 represent DNA sequences encoding for the novel human enzyme polypeptides of the invention. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at ftp.wipo.int/pub/published\_pct\_sequences

XX SQ Sequence 2022 BP; 513 A; 478 C; 512 G; 518 T; 0 U; 1 Other;  
 Query Match 92.4%; Score 462; DB 4; Length 2022;  
 Best Local Similarity 99.2%; Pred. No. 6.6e-112;  
 Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;  
 QY 1 ATATATGAGTAAACTTTGGTCTGACAGTTACCAATGCTTAATCATGAGTGAGGACCTATCTCA 60  
 DB 1095 ATATATGAGTAAACTTTGGTCTGACAGTTACCAATGCTTAATCATGAGTGAGGACCTATCTCA 1036  
 QY 61 GCGATCTGTCTATTTTCGTTTCATCCCATAGTTCCTGCACTCCCGTCCGTTAGATAACT 120  
 DB 1035 GCGATCTGTCTATTTTCGTTTCATCCCATAGTTCCTGCACTCCCGTCCGTTAGATAACT 979  
 QY 121 ACGATACGGGAGGGCTTACCATCTGGCCCGCAGTGTGCAATGATACCGCGAAGACCCACG 180  
 DB 978 ACGATACGGGAGGGCTTACCATCTGGCCCGCAGTGTGCAATGATACCGCG-AGACCCACG 920  
 QY 181 CTCACCGGCTCCAGATTTTATCAGCAATAAACCCAGCCGCGGAGGCGGAGCGCAGAAG 240  
 DB 919 CTCACCGGCTCCAGATTTTATCAGCAATAAACCCAGCCGCGGAGGCGGAGCGCAGAAG 860  
 QY 241 TGGTCTCTGCAACTTTTATCCGCTCCATCCAGTCTATTAATTGTTGCGGGAAGCTAGAGT 300  
 DB 859 TGGTCTCTGCAACTTTTATCCGCTCCATCCAGTCTATTAATTGTTGCGGGAAGCTAGAGT 800  
 QY 301 AAGTAGTTGCGCAGTTTAAATAGTTTGGCAACGTTGTTGCCATTGCTGCAGGCATCGTGGT 360  
 DB 799 AAGTAGTTGCGCAGTTTAAATAGTTTGGCAACGTTGTTGCCATTGCTGCAGGCATCGTGGT 740  
 QY 361 GTCACGCTCGTCTGTTGGTATGCGCTTTCATTTCAGCTCCGGTTCCTCCAAAGCGAGT 420  
 DB 739 GTCACGCTCGTCTGTTGGTATGCGCTTTCATTTCAGCTCCGGTTCCTCCAAAGCGAGT 680  
 QY 421 TACATGATCCCCCATGTTTGTGCAAAAAAGGGTTAGCTCTCTCGGTCCTCCGATCGTTGT 480  
 DB 679 TACATGATCCCCCATGTTTGTGCAAAAAAGGGTTAGCTCTCTCGGTCCTCCGATCGTTGT 620  
 QY 481 CAGAAGTAAAGTTGGCGCGCAG 500  
 DB 619 CAGAAGTAAAGTTGGCGCGCAG 600  
 RESULT 6  
 AAK69615/c  
 ID AAK69615 standard; DNA; 2022 BP.  
 XX AC AAK69615;  
 XX DT 06-NOV-2001 (first entry)  
 XX DE Human immune/haematopoietic antigen genomic sequence SEQ ID NO:24427.  
 XX KW Human; immune; haematopoietic; immune/haematopoietic antigen; cancer;  
 XX KW cytostatic; gene therapy; vaccine; metastasis; ds.  
 XX OS Homo sapiens.  
 XX WO200157182-A2.  
 XX PD 09-AUG-2001.  
 XX PF 17-JAN-2001; 2001WO-US001354.  
 XX PR 31-JAN-2000; 2000US-0179065P.  
 XX PR 04-FEB-2000; 2000US-0180628P.  
 XX PR 24-FEB-2000; 2000US-0184664P.  
 XX PR 02-MAR-2000; 2000US-0186350P.  
 XX PR 16-MAR-2000; 2000US-0189874P.  
 XX PR 17-MAR-2000; 2000US-0190076P.  
 XX PR 18-APR-2000; 2000US-0198123P.  
 XX PR 19-MAY-2000; 2000US-0205515P.

|    |              |                  |    |              |                  |
|----|--------------|------------------|----|--------------|------------------|
| PR | 07-JUN-2000; | 2000US-0209467P. | PR | 20-OCT-2000; | 2000US-0241785P. |
| PR | 28-JUN-2000; | 2000US-0214886P. | PR | 20-OCT-2000; | 2000US-0241786P. |
| PR | 30-JUN-2000; | 2000US-0215135P. | PR | 20-OCT-2000; | 2000US-0241787P. |
| PR | 07-JUL-2000; | 2000US-0216647P. | PR | 20-OCT-2000; | 2000US-0241808P. |
| PR | 07-JUL-2000; | 2000US-0216880P. | PR | 20-OCT-2000; | 2000US-0241809P. |
| PR | 11-JUL-2000; | 2000US-0217487P. | PR | 20-OCT-2000; | 2000US-0241826P. |
| PR | 11-JUL-2000; | 2000US-0217496P. | PR | 01-NOV-2000; | 2000US-0244617P. |
| PR | 14-JUL-2000; | 2000US-0218290P. | PR | 08-NOV-2000; | 2000US-0246474P. |
| PR | 26-JUL-2000; | 2000US-0220963P. | PR | 08-NOV-2000; | 2000US-0246475P. |
| PR | 26-JUL-2000; | 2000US-0220964P. | PR | 08-NOV-2000; | 2000US-0246477P. |
| PR | 14-AUG-2000; | 2000US-0224518P. | PR | 08-NOV-2000; | 2000US-0246478P. |
| PR | 14-AUG-2000; | 2000US-0225213P. | PR | 08-NOV-2000; | 2000US-0246523P. |
| PR | 14-AUG-2000; | 2000US-0225266P. | PR | 08-NOV-2000; | 2000US-0246524P. |
| PR | 14-AUG-2000; | 2000US-0225267P. | PR | 08-NOV-2000; | 2000US-0246525P. |
| PR | 14-AUG-2000; | 2000US-0225268P. | PR | 08-NOV-2000; | 2000US-0246527P. |
| PR | 14-AUG-2000; | 2000US-0225270P. | PR | 08-NOV-2000; | 2000US-0246528P. |
| PR | 14-AUG-2000; | 2000US-0225447P. | PR | 08-NOV-2000; | 2000US-0246532P. |
| PR | 14-AUG-2000; | 2000US-0225577P. | PR | 08-NOV-2000; | 2000US-0246609P. |
| PR | 14-AUG-2000; | 2000US-0225758P. | PR | 08-NOV-2000; | 2000US-0246610P. |
| PR | 14-AUG-2000; | 2000US-0225759P. | PR | 08-NOV-2000; | 2000US-0246611P. |
| PR | 18-AUG-2000; | 2000US-0226279P. | PR | 08-NOV-2000; | 2000US-0246613P. |
| PR | 22-AUG-2000; | 2000US-0226681P. | PR | 17-NOV-2000; | 2000US-0249207P. |
| PR | 22-AUG-2000; | 2000US-0226868P. | PR | 17-NOV-2000; | 2000US-0249208P. |
| PR | 23-AUG-2000; | 2000US-0227009P. | PR | 17-NOV-2000; | 2000US-0249209P. |
| PR | 30-AUG-2000; | 2000US-0228924P. | PR | 17-NOV-2000; | 2000US-0249211P. |
| PR | 01-SEP-2000; | 2000US-0229287P. | PR | 17-NOV-2000; | 2000US-0249212P. |
| PR | 01-SEP-2000; | 2000US-0229343P. | PR | 17-NOV-2000; | 2000US-0249213P. |
| PR | 01-SEP-2000; | 2000US-0229344P. | PR | 17-NOV-2000; | 2000US-0249214P. |
| PR | 01-SEP-2000; | 2000US-0229345P. | PR | 17-NOV-2000; | 2000US-0249215P. |
| PR | 05-SEP-2000; | 2000US-0229509P. | PR | 17-NOV-2000; | 2000US-0249216P. |
| PR | 06-SEP-2000; | 2000US-0230437P. | PR | 17-NOV-2000; | 2000US-0249217P. |
| PR | 06-SEP-2000; | 2000US-0230438P. | PR | 17-NOV-2000; | 2000US-0249218P. |
| PR | 08-SEP-2000; | 2000US-0231242P. | PR | 17-NOV-2000; | 2000US-0249244P. |
| PR | 08-SEP-2000; | 2000US-0231243P. | PR | 17-NOV-2000; | 2000US-0249245P. |
| PR | 08-SEP-2000; | 2000US-0231244P. | PR | 17-NOV-2000; | 2000US-0249264P. |
| PR | 08-SEP-2000; | 2000US-0231143P. | PR | 17-NOV-2000; | 2000US-0249265P. |
| PR | 08-SEP-2000; | 2000US-0231144P. | PR | 17-NOV-2000; | 2000US-0249297P. |
| PR | 08-SEP-2000; | 2000US-0232080P. | PR | 17-NOV-2000; | 2000US-0249299P. |
| PR | 12-SEP-2000; | 2000US-0232081P. | PR | 17-NOV-2000; | 2000US-0249300P. |
| PR | 12-SEP-2000; | 2000US-0231968P. | PR | 01-DEC-2000; | 2000US-0250160P. |
| PR | 12-SEP-2000; | 2000US-0232397P. | PR | 05-DEC-2000; | 2000US-0251030P. |
| PR | 14-SEP-2000; | 2000US-0232398P. | PR | 05-DEC-2000; | 2000US-0251988P. |
| PR | 14-SEP-2000; | 2000US-0232399P. | PR | 05-DEC-2000; | 2000US-0256719P. |
| PR | 14-SEP-2000; | 2000US-0232400P. | PR | 06-DEC-2000; | 2000US-0251479P. |
| PR | 14-SEP-2000; | 2000US-0232401P. | PR | 08-DEC-2000; | 2000US-0251856P. |
| PR | 14-SEP-2000; | 2000US-0233063P. | PR | 08-DEC-2000; | 2000US-0251868P. |
| PR | 14-SEP-2000; | 2000US-0233064P. | PR | 08-DEC-2000; | 2000US-0251869P. |
| PR | 14-SEP-2000; | 2000US-0233065P. | PR | 08-DEC-2000; | 2000US-0251989P. |
| PR | 21-SEP-2000; | 2000US-0234223P. | PR | 08-DEC-2000; | 2000US-0251990P. |
| PR | 21-SEP-2000; | 2000US-0234274P. | PR | 11-DEC-2000; | 2000US-0254097P. |
| PR | 25-SEP-2000; | 2000US-0234997P. | PR | 05-JAN-2001; | 2001US-0259678P. |
| PR | 25-SEP-2000; | 2000US-0234998P. | XX |              |                  |
| PR | 26-SEP-2000; | 2000US-0235484P. | XX |              |                  |
| PR | 27-SEP-2000; | 2000US-0235834P. | XX |              |                  |
| PR | 27-SEP-2000; | 2000US-0235836P. | XX |              |                  |
| PR | 29-SEP-2000; | 2000US-0236327P. | XX |              |                  |
| PR | 29-SEP-2000; | 2000US-0236367P. | XX |              |                  |
| PR | 29-SEP-2000; | 2000US-0236368P. | XX |              |                  |
| PR | 29-SEP-2000; | 2000US-0236369P. | XX |              |                  |
| PR | 29-SEP-2000; | 2000US-0236370P. | XX |              |                  |
| PR | 02-OCT-2000; | 2000US-0236802P. | XX |              |                  |
| PR | 02-OCT-2000; | 2000US-0237037P. | XX |              |                  |
| PR | 02-OCT-2000; | 2000US-0237038P. | XX |              |                  |
| PR | 02-OCT-2000; | 2000US-0237039P. | XX |              |                  |
| PR | 02-OCT-2000; | 2000US-0237040P. | XX |              |                  |
| PR | 13-OCT-2000; | 2000US-0239955P. | XX |              |                  |
| PR | 13-OCT-2000; | 2000US-0239937P. | XX |              |                  |
| PR | 20-OCT-2000; | 2000US-0240960P. | XX |              |                  |
| PR | 20-OCT-2000; | 2000US-0241221P. | XX |              |                  |

(HUMA-) HUMAN GENOME SCI INC.

Rosen CA, Barash SC, Ruben SM;  
WPI; 2001-483426/52.

Nucleic acids encoding human immune/hematopoietic antigen polypeptides,  
useful for preventing, diagnosing and/or treating cancers and metastasis.

Disclosure; SEQ ID NO 24427; 3071pp + Sequence Listing; English.

AAK54951 to AAK64702 encode the human immune/haematopoietic antigen (I)  
amino acid sequences given in AAM82170 to AAM91921. (I) have cytostatic  
activity, and can be used in gene therapy and vaccine production. (I)  
proteins and polynucleotides may be used in the prevention, diagnosis and  
treatment of diseases associated with inappropriate (I) expression. For  
example, they may be used to treat disorders associated with decreased

CC expression by rectifying mutations or deletions in a patient's genome  
 CC that affect the activity of (I) by expressing inactive proteins or to  
 CC supplement the patients own production of (I). Additionally, (I)  
 CC polynucleotides may be used to produce the secreted (I), by inserting the  
 CC nucleic acids into a host cell and culturing the cell to express the  
 CC protein. (I) proteins and polynucleotides may be used to prevent,  
 CC diagnose and treat immune/haematopoietic-related diseases, especially  
 CC cancers and cancer metastases of haematopoietic-derived cells. AAK64703  
 CC to AAK87694 represent human immune/haematopoietic antigen genomic  
 CC sequences from the present invention. AAK54942 to AAK54950 and AAK82169  
 CC represent sequences used in the exemplification of the present invention  
 XX  
 SQ Sequence: 2022 BP; 513 A; 478 C; 512 G; 518 T; 0 U; 1 Other;

Query Match 92.4%; Score 462; DB 4; Length 2022;  
 Best Local Similarity 99.2%; Pred. No. 6.6e-112;  
 Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;

QY 1 ATATATCAGTAACCTTGGTCTGACAGTTACCAATGCTTAATCAGTGAGGCACCTATCTCA 60  
 DB 1095 ATATATCAGTAACCTTGGTCTGACAGTTACCAATGCTTAATCAGTGAGGCACCTATCTCA 1036  
 QY 61 GCGATCTGTCTATTTCGTTTCATCCATAGTTGCTGCAACTCCCGTCGTTAGATAACT 120  
 DB 1035 GCGATCTGTCTATTTCGTTTCAT-CCATAGTTGCTG--ACTCCCGTCGTTAGATAACT 979  
 QY 121 ACGATACGGGAGGGCTTACCATCTGCGCCCGAGTGTGCAATGATACCGCGAAGACCCACG 180  
 DB 978 ACGATACGGGAGGGCTTACCATCTGCGCCCGAGTGTGCAATGATACCGCG-AGACCCACG 920  
 QY 181 CTCACGGCTCCAGATTATCAGCAATAAACAGCCAGCGGAGGCGCGAGGAGGAGGAG 240  
 DB 919 CTCACGGCTCCAGATTATCAGCAATAAACAGCCAGCGGAGGCGCGAGGAGGAGGAG 860  
 QY 241 TGTCTCTGCAACTTATCCGCTCCATCCAGTCTTAAATGTTGCGGGAAGCTAGAGT 300  
 DB 859 TGTCTCTGCAACTTATCCGCTCCATCCAGTCTTAAATGTTGCGGGAAGCTAGAGT 800  
 QY 301 AAGTAGTTCGCCAGTTAATAGTTTGCACCAAGTTGTCGCAATGCTGCGGCAATCGTGT 360  
 DB 799 AAGTAGTTCGCCAGTTAATAGTTTGCACCAAGTTGTCGCAATGCTGCGGCAATCGTGT 740  
 QY 361 GTCACGCTCGTGTGGTATGGCTTCATTCAGTCCGTTCCCAACGATCAAGGGCGAGT 420  
 DB 739 GTCACGCTCGTGTGGTATGGCTTCATTCAGTCCGTTCCCAACGATCAAGGGCGAGT 680  
 QY 421 TACATGATCCCATGTTGTCGCAAAAGCGTTAGCTCTTGGTCTCGGATCGTGT 480  
 DB 679 TACATGATCCCATGTTGTCGCAAAAGCGTTAGCTCTTGGTCTCGGATCGTGT 620  
 QY 481 CAGAAGTAAGTTGGCCGCGAG 500  
 DB 619 CAGAAGTAAGTTGGCCGCGAG 600

RESULT 7  
 ID AAK85438 standard; DNA; 2022 BP.  
 XX AAK85438;  
 AC AAK85438;  
 XX  
 DT 07-NOV-2001 (first entry)  
 XX  
 DE Human immune/haematopoietic antigen genomic sequence SEQ ID NO:40250.  
 XX  
 KW Human; immune; haematopoietic; immune/haematopoietic antigen; cancer;  
 KW cytostatic; gene therapy; vaccine; metastasis; ds.  
 XX  
 QS Homo sapiens.  
 XX  
 PN W0200157182-A2.  
 XX  
 PD 09-AUG-2001.

XX 17-JAN-2001; 2001WO-US001354.  
 XX  
 PR 31-JAN-2000; 2000US-0179065P.  
 PR 04-FEB-2000; 2000US-0180628P.  
 PR 24-FEB-2000; 2000US-0184664P.  
 PR 02-MAR-2000; 2000US-0186350P.  
 PR 16-MAR-2000; 2000US-0189874P.  
 PR 17-MAR-2000; 2000US-0190076P.  
 PR 18-APR-2000; 2000US-0198123P.  
 PR 19-MAY-2000; 2000US-0205515P.  
 PR 07-JUN-2000; 2000US-0209467P.  
 PR 28-JUN-2000; 2000US-0214886P.  
 PR 30-JUN-2000; 2000US-0215135P.  
 PR 07-JUL-2000; 2000US-0216647P.  
 PR 07-JUL-2000; 2000US-0216800P.  
 PR 11-JUL-2000; 2000US-0217487P.  
 PR 11-JUL-2000; 2000US-0217496P.  
 PR 14-JUL-2000; 2000US-0218290P.  
 PR 26-JUL-2000; 2000US-0220963P.  
 PR 26-JUL-2000; 2000US-0220964P.  
 PR 14-AUG-2000; 2000US-0224518P.  
 PR 14-AUG-2000; 2000US-0224519P.  
 PR 14-AUG-2000; 2000US-0225213P.  
 PR 14-AUG-2000; 2000US-0225214P.  
 PR 14-AUG-2000; 2000US-0225266P.  
 PR 14-AUG-2000; 2000US-0225267P.  
 PR 14-AUG-2000; 2000US-0225268P.  
 PR 14-AUG-2000; 2000US-0225270P.  
 PR 14-AUG-2000; 2000US-0225447P.  
 PR 14-AUG-2000; 2000US-0225757P.  
 PR 14-AUG-2000; 2000US-0225758P.  
 PR 14-AUG-2000; 2000US-0225759P.  
 PR 18-AUG-2000; 2000US-0226279P.  
 PR 22-AUG-2000; 2000US-0226681P.  
 PR 22-AUG-2000; 2000US-0226868P.  
 PR 22-AUG-2000; 2000US-0227182P.  
 PR 23-AUG-2000; 2000US-0227009P.  
 PR 30-AUG-2000; 2000US-0228924P.  
 PR 01-SEP-2000; 2000US-0229287P.  
 PR 01-SEP-2000; 2000US-0229343P.  
 PR 01-SEP-2000; 2000US-0229344P.  
 PR 01-SEP-2000; 2000US-0229345P.  
 PR 05-SEP-2000; 2000US-0229509P.  
 PR 05-SEP-2000; 2000US-0229513P.  
 PR 06-SEP-2000; 2000US-0230437P.  
 PR 06-SEP-2000; 2000US-0230438P.  
 PR 08-SEP-2000; 2000US-0231242P.  
 PR 08-SEP-2000; 2000US-0231243P.  
 PR 08-SEP-2000; 2000US-0231244P.  
 PR 08-SEP-2000; 2000US-0231413P.  
 PR 08-SEP-2000; 2000US-0231414P.  
 PR 08-SEP-2000; 2000US-0232080P.  
 PR 08-SEP-2000; 2000US-0232081P.  
 PR 12-SEP-2000; 2000US-0231968P.  
 PR 14-SEP-2000; 2000US-0232397P.  
 PR 14-SEP-2000; 2000US-0232398P.  
 PR 14-SEP-2000; 2000US-0232399P.  
 PR 14-SEP-2000; 2000US-0232400P.  
 PR 14-SEP-2000; 2000US-0232401P.  
 PR 14-SEP-2000; 2000US-0233063P.  
 PR 14-SEP-2000; 2000US-0233064P.  
 PR 14-SEP-2000; 2000US-0233065P.  
 PR 21-SEP-2000; 2000US-0234223P.  
 PR 21-SEP-2000; 2000US-0234274P.  
 PR 25-SEP-2000; 2000US-0234997P.  
 PR 25-SEP-2000; 2000US-0234998P.  
 PR 26-SEP-2000; 2000US-0235484P.  
 PR 27-SEP-2000; 2000US-0235834P.  
 PR 27-SEP-2000; 2000US-0235836P.  
 PR 29-SEP-2000; 2000US-0236327P.  
 PR 29-SEP-2000; 2000US-0236367P.  
 PR 29-SEP-2000; 2000US-0236368P.





08-DEC-2000; 2000US-0251989P.  
PR 08-DEC-2000; 2000US-0251990P.  
PR 11-DEC-2000; 2000US-0254097P.  
PR 05-JAN-2001; 2001US-0259678P.  
XX (HUMA-) HUMAN GENOME SCI INC.  
PA Rosen CA, Barash SC, Ruben SM;  
XX WPI; 2001-483426/52.  
XX Nucleic acids encoding human immune/hematopoietic antigen polypeptides,  
PT useful for preventing, diagnosing and/or treating cancers and metastasis.  
XX Disclosure; SEQ ID NO 40300; 3071pp + Sequence Listing; English.  
XX AAK54951 to AAK64702 encode the human immune/haematopoietic antigen (I)  
CC amino acid sequences given in AAK82170 to AAK91921. (I) have cytostatic  
CC activity, and can be used in gene therapy and vaccine production. (I)  
CC proteins and polynucleotides may be used in the prevention, diagnosis and  
CC treatment of diseases associated with inappropriate (I) expression. For  
CC example, they may be used to treat disorders associated with decreased  
CC expression by rectifying mutations or deletions in a patient's genome  
CC that affect the activity of (I) by expressing inactive proteins or to  
CC supplement the patient's own production of (I). Additionally, (I)  
CC polynucleotides may be used to produce the secreted (I), by inserting the  
CC nucleic acids into a host cell and culturing the cell to express the  
CC protein. (I) proteins and polynucleotides may be used to prevent,  
CC diagnose and treat immune/haematopoietic-related diseases, especially  
CC cancers and cancer metastases of haematopoietic-derived cells. AAK64703  
CC to AAK87694 represent human immune/haematopoietic antigen genomic  
CC sequences from the present invention. AAK54942 to AAK54950 and AAK82169  
CC represent sequences used in the exemplification of the present invention  
XX SQ Sequence 2022 BP; 513 A; 478 C; 512 G; 518 T; 0 U; 1 Other;  
Query Match 92.4%; Score 462; DB 4; Length 2022;  
Best Local Similarity 99.2%; Pred. No. 6.6e-112;  
Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;  
QY 1 ATATATGAGTAAACTTGGTCTGACAGTTACCAATGCTTAATCAGTAGGACCATCTCTCA 60  
DB 1095 ATATATGAGTAAACTTGGTCTGACAGTTACCAATGCTTAATCAGTAGGACCATCTCTCA 1036  
QY 61 GCGATCTGCTTATTTGCTTATCCATGTTGCTGCACTCCCGTCTGTTAGATAACT 120  
DB 1035 GCGATCTGCTTATTTGCTTATCCATGTTGCTGCACTCCCGTCTGTTAGATAACT 979  
QY 121 ACGATACGGAGGGCTTACCATCTGCGCCCGAGTGTGCAATGATACCGGAAGCCACG 180  
DB 978 ACGATACGGAGGGCTTACCATCTGCGCCCGAGTGTGCAATGATACCGCG-AGACCCACG 920  
QY 181 CTCACCGGCTCCAGATTATCAGCAATAAACACGACGCGGAGGCGCGCAGAG 240  
DB 919 CTCACCGGCTCCAGATTATCAGCAATAAACACGACGCGGAGGCGCGCAGAG 860  
QY 241 TGCTCTGCACTTATTCGCTCCATCCAGTCTTATTAATTTGTCGCGGAAGCTAGAGT 300  
DB 859 TGGTCTGCACTTATTCGCTCCATCCAGTCTTATTAATTTGTCGCGGAAGCTAGAGT 800  
QY 301 AAGTAGTTGCGCAGTTAATAGTTTTCGCAACGTTGTTGCCATGCTCGAGGCAATCGTGGT 360  
DB 799 AAGTAGTTGCGCAGTTAATAGTTTTCGCAACGTTGTTGCCATGCTCGAGGCAATCGTGGT 740  
QY 361 GTCAGCTCGTCTGTTGTTAGTGGCTTCAATTCAGCTCGGTTCCCAACGATCAAGCGAGT 420  
DB 739 GTCAGCTCGTCTGTTGTTAGTGGCTTCAATTCAGCTCGGTTCCCAACGATCAAGCGAGT 680  
QY 421 TACATGATCCCGCATGTTGTCAAAAAAGCGGTTAGCTTCCGTTCCGTCCTCCGATCGTTGT 480  
DB 679 TACATGATCCCGCATGTTGTCAAAAAAGCGGTTAGCTTCCGTTCCGTCCTCCGATCGTTGT 620  
QY 481 CAGAAAGTAAGTTGGCCGAG 500

DB 619 CAGAAGTAAGTTGGCCGAG 600  
RESULT 9  
AAAN91727/c  
ID AAAN91727 standard; DNA; 2039 BP.  
XX AAAN91727;  
AC AAAN91727;  
XX 25-MAR-2003 (revised)  
DT 13-APR-1990 (first entry)  
XX ss Coding strand of a portion of a 7.3 kb Neisseria gonorrhoeae plasmid  
DE carrying the beta-lactamase TEM-1 gene.  
XX Neisseria gonorrhoeae plasmid; beta-lactamase TEM-1 gene; capture probe;  
KW label probe.  
XX Neisseria gonorrhoeae.  
OS Location/Qualifiers  
FH Key 1.861  
FT CDS /\*tag= a  
FT WO8903891-A.  
PN 05-MAY-1989.  
XX 14-OCT-1988; 88WO-US003644.  
PF 15-OCT-1987; 87US-00109282.  
PR 22-APR-1988; 88US-00185201.  
PR 30-SEP-1988; 88US-00252638.  
XX (CHIR ) CHIRON CORP.  
XX Urdea MS, Warner B, Running JA, Kolberg JA, Clyne JM;  
PI Sanchezpaz R, Horn T;  
XX WPI; 1989-150787/20.  
XX Nucleic acid multimer for hybridisation assays - having single-stranded  
PT oligo-nucleotide units capable of binding specifically to sequences of  
PT interest.  
XX Fig 9; Page ?; 112pp; English.  
XX Sandwich hybridisation assays use label probes which are complementary to  
CC portions of the CDS (tag a) and capture probes which are complementary to  
CC portions which are downstream of the CDS. (Updated on 25-MAR-2003 to  
CC correct PR field.) (Updated on 25-MAR-2003 to correct PA field.) (Updated  
CC on 25-MAR-2003 to correct PI field.)  
XX Sequence 2039 BP; 560 A; 437 C; 396 G; 646 T; 0 U; 0 Other;  
SQ Query Match 92.4%; Score 462; DB 1; Length 2039;  
Best Local Similarity 99.2%; Pred. No. 6.6e-112;  
Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;  
QY 1 ATATATGAGTAAACTTGGTCTGACAGTTACCAATGCTTAATCAGTAGGACCATCTCTCA 60  
DB 887 ATATATGAGTAAACTTGGTCTGACAGTTACCAATGCTTAATCAGTAGGACCATCTCTCA 828  
QY 61 GCGATCTGCTTATTTGCTTATCCCAATGTTGCTGCACTCCCGTCTGTTAGATAACT 120  
DB 827 GCGATCTGCTTATTTGCTTATCCATGTTGCTG-CCATAGTTGCTG-CTCCCGTCTGTTAGATAACT 771  
QY 121 ACGATACGGAGGGCTTACCATCTGCGCCCGAGTGTGCAATGATACCGGAAGCCACG 180  
DB 770 ACGATACGGAGGGCTTACCATCTGCGCCCGAGTGTGCAATGATACCGCG-AGACCCACG 712  
QY 181 CTCACCGGCTCCAGATTATCAGCAATAAACACGACGCGGAGGCGCGCAGAG 240

Db 711 CTACCGGCTCCAGATTATCAGCAATAAACCCAGCCAGCGGAAGGCCGAGCGAGAAG 652  
 Qy 241 TGGTCTGCAACTTATCCGCTCCATCCAGTCTATTAAATTGTTGCCGGAAGCTAGAGT 300  
 Db 651 TGGTCTGCAACTTATCCGCTCCATCCAGTCTATTAAATTGTTGCCGGAAGCTAGAGT 592  
 Qy 301 AAGTAGTTCGCCAGTTAATAGTTTGGCGCAACGTTGTTGCCATTGCTGCAGGCATCGTGGT 360  
 Db 591 AAGTAGTTCGCCAGTTAATAGTTTGGCGCAACGTTGTTGCCATTGCTGCAGGCATCGTGGT 532  
 Qy 361 GTACGCTCTGCTGTTGGTATGCTTCATTCAGTCCGGTTCCTCAACGATCAAGCGAGT 420  
 Db 531 GTACGCTCTGCTGTTGGTATGCTTCATTCAGTCCGGTTCCTCAACGATCAAGCGAGT 472  
 Qy 421 TACATGATCCCCCATGTTGGCAAAAAGCGTTAGTCTCTCGGTCTCTCCGATCGTTGT 480  
 Db 471 TACATGATCCCCCATGTTGGCAAAAAGCGTTAGTCTCTCGGTCTCTCCGATCGTTGT 412  
 Qy 481 CAGAAGTAAGTTGGCCGCGAG 500  
 Db 411 CAGAAGTAAGTTGGCCGCGAG 392

RESULT 10  
 AAA14722/c  
 ID AAA14722 standard; DNA; 2187 BP.  
 XX  
 AC AAA14722;  
 XX  
 DT 06-AUG-2003 (revised)  
 DT 08-AUG-2000 (first entry)  
 XX  
 DE Nucleotide sequence of region A of vector Ad5RSVbeta-lactamase.  
 XX  
 KW Cellular cytotoxicity; tumor cell; expression vector; beta-lactamase;  
 KW replication-deficient adenovirus type 5; suicide gene therapy;  
 KW cancer cell; chemotherapy; beta-lactamase prodrug enzyme; prodrug TCM;  
 KW anticancer; tumor; leukemia; breast cancer; Wilm's tumor;  
 KW small cell lung carcinoma; Ewing's sarcoma; colon carcinoma;  
 KW papillary adenocarcinoma; ss.  
 XX  
 OS Synthetic.  
 OS Rous sarcoma virus.  
 OS Mastadenovirus.  
 XX  
 PN WO200020608-A1.  
 XX  
 PD 13-APR-2000.  
 XX  
 PF 01-OCT-1999; 99WO-US020908.  
 XX  
 PR 02-OCT-1998; 98US-00165321.  
 XX  
 PA (GENO-) GENOTHERAPEUTICS INC.  
 XX  
 PI Steiner MS;  
 XX  
 DR WPI; 2000-303786/26.  
 XX  
 PT Treating cancer using viral vectors which encode enzymes that convert  
 PT inactive drugs to active cytotoxic agents, expression of the enzyme is  
 PT tissue specific therefore targeting the effects of the drug to tumor  
 PT cells.  
 XX  
 PS Disclosure; Fig 10; 130pp; English.  
 XX  
 CC The specification describes a method for inducing cellular cytotoxicity  
 CC in tumor cells using replication-deficient adenovirus type 5 expression  
 CC vectors. The vectors comprise a sequence encoding a beta-lactamase under  
 CC the control of a Rous Sarcoma virus in combination with a prodrug  
 CC conjugated to a toxic agent. Tissue specific expression of the enzyme  
 CC converts the inactive drugs into active cancer killing agents. The

adenovirus genome has a deletion in an E1 and/or E3 region, and the beta-lactamase sequence is inserted within this region. The vectors are used for suicide gene therapy. This involves introducing genes into cancer cells that encode enzymes capable of converting inactive drugs into active cancer killing agents. If tissue specific promoters are coupled to the prodrug enzymes, then production of the prodrug will be tissue specific and targeted to the tumor. Therefore the cancer cells act as their own factories to activate chemotherapy agents and commit suicide. Beta-lactamase prodrug enzymes convert prodrug TCM into an active anticancer agent which is cytotoxic to cancer cells PPC-1. The method is used to treat patients with cancers of the brain, bladder or prostate. It may also be used to treat a range of other tumors such as leukemia, breast cancer, Wilm's tumor, small cell lung carcinoma, Ewing's sarcoma, colon carcinoma and papillary adenocarcinomas. The present sequence represents region A of vector Ad5RSVbeta-lactamase, a vector of the CC invention. (Updated on 06-AUG-2003 to correct OS field.)  
 XX  
 SQ Sequence 2187 BP; 562 A; 477 C; 592 G; 556 T; 0 U; 0 Other;

Query Match 92.4%; Score 462; DB 3; Length 2187;  
 Best Local Similarity 99.2%; Pred. No. 6.e-112;  
 Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;  
 Qy 1 ATATATGAGTAACTTGGTCTGACAGTTACCAATGCTTAATCAGTGGGACCTATCTCA 60  
 Db 1993 ATATATGAGTAACTTGGTCTGACAGTTACCAATGCTTAATCAGTGGGACCTATCTCA 1934  
 Qy 61 GCATCTGCTATTTCGTTTCATCCCATAGTTCGCACTCCCGCTCGTGTAGATAACT 120  
 Db 1933 GCATCTGCTATTTCGTTTCAT-CCATAGTTCGCTG-CTCCCGCTCGTGTAGATAACT 1877  
 Qy 121 ACGATACGGAGGGCTTACCATCTGCCCCAGTGTGCAATGATACCGCAAGACCCAG 180  
 Db 1876 ACGATACGGAGGGCTTACCATCTGCCCCAGTGTGCAATGATACCGCG-AGACCCAGC 1818  
 Qy 181 CTCACGGCTCCAGATTATCAGCAATTAACACGAGCCGAGGAGGCCGAGCGAGAAG 240  
 Db 1817 CTCACGGCTCCAGATTATCAGCAATTAACACGAGCCGAGGAGGCCGAGCGAGAAG 1758  
 Qy 241 TGTCTCTGCAACTTTATCCGCTCCATCCAGTCTATTAATTGTTGCCGGAAGCTAGAGT 300  
 Db 1757 TGTCTCTGCAACTTTATCCGCTCCATCCAGTCTATTAATTGTTGCCGGAAGCTAGAGT 1698  
 Qy 301 AAGTAGTTCGCCAGTTAATAGTTTGGCAACGTTGTTGCCATTGCTGCAGGCATCGTGGT 360  
 Db 1697 AAGTAGTTCGCCAGTTAATAGTTTGGCAACGTTGTTGCCATTGCTGCAGGCATCGTGGT 1638  
 Qy 361 GTACGCTCTGCTGTTGGTATGCTTCATTCAGTCCGGTTCCTCAACGATCAAGCGAGT 420  
 Db 1637 GTACGCTCTGCTGTTGGTATGCTTCATTCAGTCCGGTTCCTCAACGATCAAGCGAGT 1578  
 Qy 421 TACATGATCCCCCATGTTGGCAAAAAGCGTTAGTCTCTCGGTCTCTCCGATCGTTGT 480  
 Db 1577 TACATGATCCCCCATGTTGGCAAAAAGCGTTAGTCTCTCGGTCTCTCCGATCGTTGT 1518  
 Qy 481 CAGAAGTAAGTTGGCCGCGAG 500  
 Db 1517 CAGAAGTAAGTTGGCCGCGAG 1498

RESULT 11  
 AAS41826/c  
 ID AAS41826 standard; DNA; 2212 BP.  
 XX  
 AC AAS41826;  
 XX  
 DT 17-DEC-2001 (first entry)  
 XX  
 DE Genomic sequence #142 encoding novel human enzyme polypeptide.  
 XX  
 KW Human; oxidoreductase enzyme; transferase; hydrolase; lyase; isomerase;  
 KW ligase; hyperproliferative disorder; immunodeficiency disorder;  
 KW autoimmune disorder; neurological disorder; metabolic disorder;

\* inflammatory disorder; cardiovascular disorder; reproductive disorder;  
KW blood-related disorder; infectious disorder; gene therapy; cytostatic;  
KW anti arthritic; nephrotropic; anticoagulant; ds.

XX Homo sapiens.

PN WO200155301-A2.

XX 02-AUG-2001.

PD 17-JAN-2001; 2001WO-US0001239.

XX 31-JAN-2000; 2000US-0179065P.

PR 04-FEB-2000; 2000US-0180628P.

PR 24-FEB-2000; 2000US-0184664P.

PR 02-MAR-2000; 2000US-0186350P.

PR 16-MAR-2000; 2000US-0189874P.

PR 17-MAR-2000; 2000US-0190076P.

PR 18-APR-2000; 2000US-0198123P.

PR 19-MAY-2000; 2000US-0205515P.

PR 07-JUN-2000; 2000US-0209467P.

PR 28-JUN-2000; 2000US-0214886P.

PR 30-JUN-2000; 2000US-0215135P.

PR 07-JUL-2000; 2000US-0216647P.

PR 07-JUL-2000; 2000US-0216880P.

PR 11-JUL-2000; 2000US-0217487P.

PR 11-JUL-2000; 2000US-0217496P.

PR 14-JUL-2000; 2000US-0218290P.

PR 26-JUL-2000; 2000US-0220363P.

PR 26-JUL-2000; 2000US-0220364P.

PR 14-AUG-2000; 2000US-0224518P.

PR 14-AUG-2000; 2000US-0224519P.

PR 14-AUG-2000; 2000US-0225213P.

PR 14-AUG-2000; 2000US-0225214P.

PR 14-AUG-2000; 2000US-0225266P.

PR 14-AUG-2000; 2000US-0225267P.

PR 14-AUG-2000; 2000US-0225268P.

PR 14-AUG-2000; 2000US-0225270P.

PR 14-AUG-2000; 2000US-0225447P.

PR 14-AUG-2000; 2000US-0225757P.

PR 14-AUG-2000; 2000US-0225758P.

PR 14-AUG-2000; 2000US-0225759P.

PR 18-AUG-2000; 2000US-0226279P.

PR 22-AUG-2000; 2000US-0226681P.

PR 22-AUG-2000; 2000US-0226686P.

PR 22-AUG-2000; 2000US-0227182P.

PR 23-AUG-2000; 2000US-0227009P.

PR 21-SEP-2000; 2000US-02334274P.  
PR 25-SEP-2000; 2000US-02334997P.  
PR 25-SEP-2000; 2000US-02334998P.  
PR 26-SEP-2000; 2000US-02335484P.  
PR 27-SEP-2000; 2000US-02335834P.  
PR 29-SEP-2000; 2000US-02335836P.  
PR 29-SEP-2000; 2000US-02336327P.  
PR 29-SEP-2000; 2000US-02336367P.  
PR 29-SEP-2000; 2000US-02336368P.  
PR 29-SEP-2000; 2000US-02336369P.  
PR 29-SEP-2000; 2000US-02336370P.  
PR 02-OCT-2000; 2000US-02336802P.  
PR 02-OCT-2000; 2000US-02337037P.  
PR 02-OCT-2000; 2000US-02337038P.  
PR 02-OCT-2000; 2000US-02337039P.  
PR 13-OCT-2000; 2000US-02339335P.  
PR 13-OCT-2000; 2000US-02339337P.  
PR 20-OCT-2000; 2000US-0240960P.  
PR 20-OCT-2000; 2000US-0241221P.  
PR 20-OCT-2000; 2000US-0241785P.  
PR 20-OCT-2000; 2000US-0241786P.  
PR 20-OCT-2000; 2000US-0241787P.  
PR 20-OCT-2000; 2000US-0241808P.  
PR 20-OCT-2000; 2000US-0241809P.  
PR 20-OCT-2000; 2000US-0241826P.  
PR 01-NOV-2000; 2000US-0244617P.  
PR 08-NOV-2000; 2000US-0246474P.  
PR 08-NOV-2000; 2000US-0246475P.  
PR 08-NOV-2000; 2000US-0246476P.  
PR 08-NOV-2000; 2000US-0246477P.  
PR 08-NOV-2000; 2000US-0246478P.  
PR 08-NOV-2000; 2000US-0246523P.  
PR 08-NOV-2000; 2000US-0246524P.  
PR 08-NOV-2000; 2000US-0246525P.  
PR 08-NOV-2000; 2000US-0246526P.  
PR 08-NOV-2000; 2000US-0246527P.  
PR 08-NOV-2000; 2000US-0246528P.  
PR 08-NOV-2000; 2000US-0246532P.  
PR 08-NOV-2000; 2000US-0246609P.  
PR 08-NOV-2000; 2000US-0246610P.  
PR 08-NOV-2000; 2000US-0246611P.  
PR 08-NOV-2000; 2000US-0246613P.  
PR 17-NOV-2000; 2000US-0249207P.  
PR 17-NOV-2000; 2000US-0249208P.  
PR 17-NOV-2000; 2000US-0249209P.  
PR 17-NOV-2000; 2000US-0249210P.  
PR 17-NOV-2000; 2000US-0249211P.  
PR 17-NOV-2000; 2000US-0249212P.  
PR 17-NOV-2000; 2000US-0249213P.  
PR 17-NOV-2000; 2000US-0249214P.  
PR 17-NOV-2000; 2000US-0249215P.  
PR 17-NOV-2000; 2000US-0249216P.  
PR 17-NOV-2000; 2000US-0249217P.  
PR 17-NOV-2000; 2000US-0249218P.  
PR 17-NOV-2000; 2000US-0249244P.  
PR 17-NOV-2000; 2000US-0249245P.  
PR 17-NOV-2000; 2000US-0249264P.  
PR 17-NOV-2000; 2000US-0249265P.  
PR 17-NOV-2000; 2000US-0249297P.  
PR 17-NOV-2000; 2000US-0249299P.  
PR 17-NOV-2000; 2000US-0249300P.  
PR 01-DEC-2000; 2000US-0250160P.  
PR 01-DEC-2000; 2000US-0250391P.  
PR 05-DEC-2000; 2000US-0251030P.  
PR 05-DEC-2000; 2000US-0251988P.  
PR 05-DEC-2000; 2000US-0256719P.  
PR 06-DEC-2000; 2000US-0251479P.  
PR 08-DEC-2000; 2000US-0251856P.  
PR 08-DEC-2000; 2000US-0251868P.  
PR 08-DEC-2000; 2000US-0251869P.  
PR 08-DEC-2000; 2000US-0251989P.  
PR 08-DEC-2000; 2000US-0251990P.



PR 11-DEC-2000; 2000US-0254097P.  
PR 05-JAN-2001; 2001US-0259678P.  
XX (HUMA-) HUMAN GENOME SCI INC.  
XX Rosen CA, Barash SC, Ruben SM;  
XX WPI; 2001-465566/50.  
XX Novel polypeptides and polynucleotides useful for diagnosing, preventing,  
PT treating neural, immune system, muscular, reproductive, pulmonary,  
PT cardiovascular, renal, proliferative disorders and cancerous diseases.  
XX Disclosure; SEQ ID NO 1952; 1180pp; English.

XX The present invention relates to the isolation of novel human enzyme  
CC polypeptides (AAU22915-AAU23814), and the cDNA and genomic sequences  
CC encoding them. The enzyme polypeptides of the invention may comprise the  
CC functional classes of oxidoreductases, transferases, hydrolases, lyases,  
CC isomerases or ligases. The sequences of the invention are useful in the  
CC diagnosis, treatment, prevention and/or prognosis of a wide range of  
CC disorders including hyperproliferative disorders (e.g. cancer),  
CC immunodeficiency disorders (e.g. AIDS) autoimmune disorders (e.g.  
CC arthritis), neurological disorders (e.g. Alzheimer's disease), metabolic  
CC disorders (e.g. phenylketonuria), inflammatory disorders (e.g. asthma),  
CC cardiovascular disorders (e.g. atherosclerosis), blood-related disorders  
CC (e.g. haemophilia), reproductive disorders (e.g. infertility) and  
CC infectious disorders (e.g. influenza). The polynucleotides of the  
CC invention can also be used in gene therapy. AAS41685-AAS42192 represent  
CC DNA sequences encoding for the novel human enzyme polypeptides of the  
CC invention. Note: The sequence data for this patent did not form part of  
CC the printed specification, but was obtained in electronic format directly  
CC from WIPO at ftp.wipo.int/pub/published\_pct\_sequences

XX Sequence 2212 BP; 558 A; 537 C; 557 G; 560 T; 0 U; 0 Other;

Query Match 92.4%; Score 462; DB 4; Length 2212;  
Best Local Similarity 99.2%; Pred. No. 6.6e-112;  
Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;

QY 1 ATATATGAGTAACTTGGTCTGACAGTACCAATGCTTAATCAGTAGGACCACTTCTCA 60  
DB 1098 ATATATGAGTAACTTGGTCTGACAGTACCAATGCTTAATCAGTAGGACCACTTCTCA 1039  
QY 61 GCAGTCTGCTATTTTGGTTCATCCCATAGTGTGCTGCAACTCCCGTGGTAGATAACT 120  
DB 1038 GCAGTCTGCTATTTTGGTTCAT -CCATAGTGGCTG--ACTCCCGTGGTAGATAACT 982  
QY 121 ACATACGGGAGGGCTTACCATCTGGCCCCAGTGTGCTGCAATGATACCGGAAGCCACG 180  
DB 981 ACATACGGGAGGGCTTACCATCTGGCCCCAGTGTGCAATGATACCGG-AGACCCACG 923  
QY 181 CTCACGGCTCCAGATTATCAGCAATAAACAGCCGCGGAGGCGGCGGAGGAG 240  
DB 922 CTCACGGCTCCAGATTATCAGCAATAAACAGCCGCGGAGGCGGCGGAGGAG 863  
QY 241 TGGTCTGCAACTTTATCCGCTCCATCCAGTCTTATTAATTTGTCGGGAAGCTAGAGT 300  
DB 862 TGGTCTGCAACTTTATCCGCTCCATCCAGTCTTATTAATTTGTCGGGAAGCTAGAGT 803  
QY 301 AAGTAGTTCGCCAGTTAATAGTTTGGCAACGTTGTTGCCAATTCCTGACGGCATCGTGGT 360  
DB 802 AAGTAGTTCGCCAGTTAATAGTTTGGCAACGTTGTTGCCAATTCCTGACGGCATCGTGGT 743  
QY 361 GTCACGCTCGTGGTGGTAGTTCATTCAGTTCGGTTCGAGTCCAGCATCAAGCGAGT 420  
DB 742 GTCACGCTCGTGGTGGTAGTTCATTCAGTTCGGTTCGAGTCCAGCATCAAGCGAGT 683  
QY 421 TACATGATCCCCCATGTTGTCGCAAAAGCGGTAGCTCTCGTCTCGATCGTTGT 480  
DB 682 TACATGATCCCCCATGTTGTCGCAAAAGCGGTAGCTCTCGTCTCGATCGTTGT 623  
QY 481 CAGAAGTAGTTCGCCGCGAG 500

DB 622 CAGAGTAAGTTGGCGCAG 603

RESULT 12

AAS411782/c  
ID AAS411782 standard; DNA; 2212 BP.  
XX AC AAS411782;  
XX 17-DEC-2001 (first entry)  
DT Genomic sequence #98 encoding novel human enzyme polypeptide.  
DE  
XX Human; oxidoreductase enzyme; transferase; hydrolase; lyase; isomerase;  
KW ligase; hyperproliferative disorder; immunodeficiency disorder;  
KW autoimmune disorder; neurological disorder; metabolic disorder;  
KW inflammatory disorder; cardiovascular disorder; reproductive disorder;  
KW blood-related disorder; infectious disorder; gene therapy; cytostatic;  
KW anti arthritic; nephrotropic; anticoagulant; ds.  
XX Homo sapiens.  
XX WO200153301-A2.  
XX 02-AUG-2001.  
XX 17-JAN-2001; 2001WO-US001239.  
XX 31-JAN-2000; 2000US-0179065P.  
PR 04-FEB-2000; 2000US-0180628P.  
PR 24-FEB-2000; 2000US-0184664P.  
PR 02-MAR-2000; 2000US-0186350P.  
PR 16-MAR-2000; 2000US-0189874P.  
PR 17-MAR-2000; 2000US-0190076P.  
PR 18-APR-2000; 2000US-0198123P.  
PR 19-MAY-2000; 2000US-0205515P.  
PR 07-JUN-2000; 2000US-0209467P.  
PR 28-JUN-2000; 2000US-0214886P.  
PR 30-JUN-2000; 2000US-0215135P.  
PR 07-JUL-2000; 2000US-0216647P.  
PR 07-JUL-2000; 2000US-0216880P.  
PR 11-JUL-2000; 2000US-0217487P.  
PR 11-JUL-2000; 2000US-0217496P.  
PR 14-JUL-2000; 2000US-0218290P.  
PR 26-JUL-2000; 2000US-0220963P.  
PR 26-JUL-2000; 2000US-0220964P.  
PR 14-AUG-2000; 2000US-0224518P.  
PR 14-AUG-2000; 2000US-0224519P.  
PR 14-AUG-2000; 2000US-0225213P.  
PR 14-AUG-2000; 2000US-0225214P.  
PR 14-AUG-2000; 2000US-0225266P.  
PR 14-AUG-2000; 2000US-0225267P.  
PR 14-AUG-2000; 2000US-0225268P.  
PR 14-AUG-2000; 2000US-0225270P.  
PR 14-AUG-2000; 2000US-0225477P.  
PR 14-AUG-2000; 2000US-0225757P.  
PR 14-AUG-2000; 2000US-0225758P.  
PR 14-AUG-2000; 2000US-0225759P.  
PR 18-AUG-2000; 2000US-0226279P.  
PR 22-AUG-2000; 2000US-0226681P.  
PR 22-AUG-2000; 2000US-0226682P.  
PR 22-AUG-2000; 2000US-0227182P.  
PR 23-AUG-2000; 2000US-0227009P.  
PR 30-AUG-2000; 2000US-0228924P.  
PR 01-SEP-2000; 2000US-0229287P.  
PR 01-SEP-2000; 2000US-0229343P.  
PR 01-SEP-2000; 2000US-0229344P.  
PR 01-SEP-2000; 2000US-0229345P.  
PR 05-SEP-2000; 2000US-0229509P.  
PR 05-SEP-2000; 2000US-0229513P.  
PR 06-SEP-2000; 2000US-0230437P.  
PR 06-SEP-2000; 2000US-0230438P.

08-SEP-2000; 2000US-0231242P.  
PR 08-SEP-2000; 2000US-0231243P.  
PR 08-SEP-2000; 2000US-0231244P.  
PR 08-SEP-2000; 2000US-0231245P.  
PR 08-SEP-2000; 2000US-0231413P.  
PR 08-SEP-2000; 2000US-0231414P.  
PR 08-SEP-2000; 2000US-0232080P.  
PR 08-SEP-2000; 2000US-0232081P.  
PR 08-SEP-2000; 2000US-0231968P.  
PR 12-SEP-2000; 2000US-0232397P.  
PR 14-SEP-2000; 2000US-0232398P.  
PR 14-SEP-2000; 2000US-0232399P.  
PR 14-SEP-2000; 2000US-0232400P.  
PR 14-SEP-2000; 2000US-0232401P.  
PR 14-SEP-2000; 2000US-0233063P.  
PR 14-SEP-2000; 2000US-0233064P.  
PR 14-SEP-2000; 2000US-0233065P.  
PR 21-SEP-2000; 2000US-0234223P.  
PR 21-SEP-2000; 2000US-0234224P.  
PR 25-SEP-2000; 2000US-0234997P.  
PR 25-SEP-2000; 2000US-0234998P.  
PR 26-SEP-2000; 2000US-0235484P.  
PR 27-SEP-2000; 2000US-0235834P.  
PR 27-SEP-2000; 2000US-0235836P.  
PR 29-SEP-2000; 2000US-0236327P.  
PR 29-SEP-2000; 2000US-0236328P.  
PR 29-SEP-2000; 2000US-0236368P.  
PR 29-SEP-2000; 2000US-0236369P.  
PR 29-SEP-2000; 2000US-0236370P.  
PR 02-OCT-2000; 2000US-0236802P.  
PR 02-OCT-2000; 2000US-0237037P.  
PR 02-OCT-2000; 2000US-0237038P.  
PR 02-OCT-2000; 2000US-0237039P.  
PR 13-OCT-2000; 2000US-0237040P.  
PR 13-OCT-2000; 2000US-0239335P.  
PR 13-OCT-2000; 2000US-0239337P.  
PR 20-OCT-2000; 2000US-0240960P.  
PR 20-OCT-2000; 2000US-0241221P.  
PR 20-OCT-2000; 2000US-0241785P.  
PR 20-OCT-2000; 2000US-0241786P.  
PR 20-OCT-2000; 2000US-0241787P.  
PR 20-OCT-2000; 2000US-0241808P.  
PR 20-OCT-2000; 2000US-0241809P.  
PR 01-NOV-2000; 2000US-0241826P.  
PR 01-NOV-2000; 2000US-0244617P.  
PR 08-NOV-2000; 2000US-0246474P.  
PR 08-NOV-2000; 2000US-0246475P.  
PR 08-NOV-2000; 2000US-0246476P.  
PR 08-NOV-2000; 2000US-0246477P.  
PR 08-NOV-2000; 2000US-0246478P.  
PR 08-NOV-2000; 2000US-0246523P.  
PR 08-NOV-2000; 2000US-0246524P.  
PR 08-NOV-2000; 2000US-0246525P.  
PR 08-NOV-2000; 2000US-0246526P.  
PR 08-NOV-2000; 2000US-0246527P.  
PR 08-NOV-2000; 2000US-0246528P.  
PR 08-NOV-2000; 2000US-0246532P.  
PR 08-NOV-2000; 2000US-0246609P.  
PR 08-NOV-2000; 2000US-0246610P.  
PR 08-NOV-2000; 2000US-0246611P.  
PR 08-NOV-2000; 2000US-0246613P.  
PR 17-NOV-2000; 2000US-0249207P.  
PR 17-NOV-2000; 2000US-0249208P.  
PR 17-NOV-2000; 2000US-0249209P.  
PR 17-NOV-2000; 2000US-0249210P.  
PR 17-NOV-2000; 2000US-0249211P.  
PR 17-NOV-2000; 2000US-0249212P.  
PR 17-NOV-2000; 2000US-0249213P.  
PR 17-NOV-2000; 2000US-0249214P.  
PR 17-NOV-2000; 2000US-0249215P.  
PR 17-NOV-2000; 2000US-0249216P.  
PR 17-NOV-2000; 2000US-0249217P.  
PR 17-NOV-2000; 2000US-0249218P.  
PR 17-NOV-2000; 2000US-0249244P.

108-SEP-2000; 2000US-0249245P.  
PR 108-SEP-2000; 2000US-0249246P.  
PR 108-SEP-2000; 2000US-0249247P.  
PR 108-SEP-2000; 2000US-0249248P.  
PR 108-SEP-2000; 2000US-0249249P.  
PR 108-SEP-2000; 2000US-0249250P.  
PR 108-SEP-2000; 2000US-0250160P.  
PR 01-DEC-2000; 2000US-0250391P.  
PR 05-DEC-2000; 2000US-0251030P.  
PR 05-DEC-2000; 2000US-0251988P.  
PR 05-DEC-2000; 2000US-0251989P.  
PR 06-DEC-2000; 2000US-0251989P.  
PR 08-DEC-2000; 2000US-0251479P.  
PR 08-DEC-2000; 2000US-0251856P.  
PR 08-DEC-2000; 2000US-0251868P.  
PR 08-DEC-2000; 2000US-0251869P.  
PR 08-DEC-2000; 2000US-0251989P.  
PR 08-DEC-2000; 2000US-0251990P.  
PR 11-DEC-2000; 2000US-0254097P.  
PR 05-JAN-2001; 2001US-0259678P.

(HUMA-) HUMAN GENOME SCI INC.  
Rosen CA, Barash SC, Ruben SM;  
WPI; 2001-465566/50.  
Novel polypeptides and polynucleotides useful for diagnosing, preventing, treating neural, immune system, muscular, reproductive, pulmonary, cardiovascular, renal, proliferative disorders and cancerous diseases.  
Disclosure; SEQ ID NO 1908; 1180pp; English.  
The present invention relates to the isolation of novel human enzyme polypeptides (AAU22915-AAU23814), and the cDNA and genomic sequences encoding them. The enzyme polypeptides of the invention may comprise the functional classes of oxidoreductases, transferases, hydrolases, lyases, isomerases or ligases. The sequences of the invention are useful in the diagnosis, treatment, prevention and/or prognosis of a wide range of disorders including hyperproliferative disorders (e.g. cancer), immunodeficiency disorders (e.g. AIDS) autoimmune disorders (e.g. arthritis), neurological disorders (e.g. Alzheimer's disease), metabolic disorders (e.g. phenylketonuria), inflammatory disorders (e.g. asthma), cardiovascular disorders (e.g. atherosclerosis), blood-related disorders (e.g. haemophilia), reproductive disorders (e.g. infertility) and infectious disorders (e.g. Influenza). The polynucleotides of the invention can also be used in gene therapy. AAS41685-AA42192 represent DNA sequences encoding for the novel human enzyme polypeptides of the invention. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at ftp.wipo.int/pub/published\_pct\_sequences

Sequence 2212 BP; 558 A; 537 C; 557 G; 560 T; 0 U; 0 Other;  
Query Match 92.4%; Score 462; DB 4; Length 2212;  
Best Local Similarity 99.2%; Pred. No. 6.6e-112;  
Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;

QY 1 ATATATGATGAACCTGGCTGACAGTTACCAATGCTTAATCAGTACGACGACCTATCTCA 60  
DB 1098 ATATATGATGAACCTGGCTGACAGTTACCAATGCTTAATCAGTACGACGACCTATCTCA 1039  
QY 61 GCGATCTGTCTATTTCGTTTCATCCCATAGTTCCTGCAACTCCCGCTCGTGTAGATAACT 120  
DB 1038 GCGATCTGTCTATTTCGTTTCATCCCATAGTTCCTGCAACTCCCGCTCGTGTAGATAACT 982  
QY 121 ACGATACGGAGGGCTTACCATCTGCGCCCACTGCTGCAATGATACCGGAGACCCAGC 180  
DB 981 ACGATACGGAGGGCTTACCATCTGCGCCCACTGCTGCAATGATACCGGAGACCCAGC 923  
QY 181 CTCACCGCTCCAGATTTATCAGCAATAAACCCAGCAGCCGAGGCGGAGCGAGAG 240  
DB 922 CTCACCGCTCCAGATTTATCAGCAATAAACCCAGCAGCCGAGGCGGAGCGGAGAG 863

|            |   |
|------------|---|
| RESULT 13  |   |
| AAS41875/c |   |
| ID         | AAS41875 standard; DNA; 2212 BP.  |
| XX         |   |
| XX         |   |
| XX         | AAS41875;   |
| XX         |   |
| XX         |   |
| XX         |   |
| DT         | 17-DEC-2001 (first entry)   |
| XX         |   |
| DE         | Genomic sequence #191 encoding novel human enzyme polypeptide.          |
| XX         |   |
| XX         |   |
| KW         | Human; oxidoreductase enzyme; transferase; hydrolase; lyase; isomerase; |
| KW         | ligase; hyperproliferative disorder; immunodeficiency disorder;         |
| KW         | autoimmune disorder; neurological disorder; metabolic disorder;         |
| KW         | inflammatory disorder; cardiovascular disorder; reproductive disorder;  |
| KW         | blood-related disorder; infectious disorder; gene therapy; cytostatic;  |
| KW         | anti arthritic; nephrotropic; anticoagulant; ds.                        |
| XX         |   |
| XX         |   |
| OS         | Homo sapiens.   |
| XX         |   |
| XX         |   |
| EN         | WO200155301-A2.   |
| XX         |   |
| PD         | 02-AUG-2001.  |
| XX         |   |
| XX         |   |
| PF         | 17-JAN-2001; 2001WO-US001239.   |

|    |              |                   |
|----|--------------|-------------------|
| PR | 14-AUG-2000; | 2000US-02257577P; |
| PR | 14-AUG-2000; | 2000US-02257580P; |
| PR | 14-AUG-2000; | 2000US-02257589P; |
| PR | 18-AUG-2000; | 2000US-0226379P;  |
| PR | 22-AUG-2000; | 2000US-0226681P;  |
| PR | 22-AUG-2000; | 2000US-0226868P;  |
| PR | 23-AUG-2000; | 2000US-0227182P;  |
| PR | 23-AUG-2000; | 2000US-02277009P; |
| PR | 30-AUG-2000; | 2000US-0228924P;  |
| PR | 01-SEP-2000; | 2000US-0229287P;  |
| PR | 01-SEP-2000; | 2000US-0229343P;  |
| PR | 01-SEP-2000; | 2000US-0229344P;  |
| PR | 01-SEP-2000; | 2000US-0229345P;  |
| PR | 03-SEP-2000; | 2000US-0229509P;  |
| PR | 05-SEP-2000; | 2000US-0229513P;  |
| PR | 06-SEP-2000; | 2000US-0230437P;  |
| PR | 08-SEP-2000; | 2000US-0230438P;  |
| PR | 08-SEP-2000; | 2000US-0231242P;  |
| PR | 08-SEP-2000; | 2000US-0231243P;  |
| PR | 08-SEP-2000; | 2000US-0231244P;  |
| PR | 08-SEP-2000; | 2000US-0231413P;  |
| PR | 08-SEP-2000; | 2000US-0231414P;  |
| PR | 08-SEP-2000; | 2000US-0232080P;  |
| PR | 08-SEP-2000; | 2000US-0232081P;  |
| PR | 12-SEP-2000; | 2000US-0231968P;  |
| PR | 14-SEP-2000; | 2000US-0232397P;  |
| PR | 14-SEP-2000; | 2000US-0232398P;  |
| PR | 14-SEP-2000; | 2000US-0232399P;  |
| PR | 14-SEP-2000; | 2000US-0232400P;  |
| PR | 14-SEP-2000; | 2000US-0232401P;  |
| PR | 14-SEP-2000; | 2000US-02323063P; |
| PR | 14-SEP-2000; | 2000US-0233064P;  |
| PR | 14-SEP-2000; | 2000US-0233065P;  |
| PR | 21-SEP-2000; | 2000US-0234223P;  |
| PR | 21-SEP-2000; | 2000US-0234274P;  |
| PR | 23-SEP-2000; | 2000US-0234397P;  |
| PR | 23-SEP-2000; | 2000US-0234398P;  |
| PR | 26-SEP-2000; | 2000US-0235844P;  |
| PR | 27-SEP-2000; | 2000US-0235834P;  |
| PR | 27-SEP-2000; | 2000US-0235836P;  |
| PR | 29-SEP-2000; | 2000US-0236327P;  |
| PR | 29-SEP-2000; | 2000US-0236367P;  |
| PR | 29-SEP-2000; | 2000US-0236368P;  |
| PR | 29-SEP-2000; | 2000US-0236369P;  |
| PR | 02-OCT-2000; | 2000US-0236370P;  |
| PR | 02-OCT-2000; | 2000US-0236802P;  |
| PR | 02-OCT-2000; | 2000US-0237037P;  |
| PR | 02-OCT-2000; | 2000US-0237038P;  |
| PR | 02-OCT-2000; | 2000US-0237039P;  |
| PR | 13-OCT-2000; | 2000US-0237040P;  |
| PR | 13-OCT-2000; | 2000US-0239935P;  |
| PR | 13-OCT-2000; | 2000US-0239937P;  |
| PR | 20-OCT-2000; | 2000US-0241808P;  |
| PR | 20-OCT-2000; | 2000US-0241809P;  |
| PR | 20-OCT-2000; | 2000US-0241826P;  |
| PR | 20-OCT-2000; | 2000US-0244617P;  |
| PR | 08-NOV-2000; | 2000US-0246474P;  |
| PR | 08-NOV-2000; | 2000US-0246475P;  |
| PR | 08-NOV-2000; | 2000US-0246476P;  |
| PR | 08-NOV-2000; | 2000US-0246477P;  |
| PR | 08-NOV-2000; | 2000US-0246478P;  |
| PR | 08-NOV-2000; | 2000US-0246523P;  |
| PR | 08-NOV-2000; | 2000US-0246524P;  |
| PR | 08-NOV-2000; | 2000US-0246525P;  |
| PR | 08-NOV-2000; | 2000US-0246526P;  |
| PR | 08-NOV-2000; | 2000US-0246527P;  |
| PR | 08-NOV-2000; | 2000US-0246528P;  |
| PR | 08-NOV-2000; | 2000US-0246532P;  |

PR 08-NOV-2000; 2000US-0246609P.  
 PR 08-NOV-2000; 2000US-0246610P.  
 PR 08-NOV-2000; 2000US-0246611P.  
 PR 08-NOV-2000; 2000US-0246613P.  
 PR 17-NOV-2000; 2000US-0249207P.  
 PR 17-NOV-2000; 2000US-0249208P.  
 PR 17-NOV-2000; 2000US-0249209P.  
 PR 17-NOV-2000; 2000US-0249210P.  
 PR 17-NOV-2000; 2000US-0249211P.  
 PR 17-NOV-2000; 2000US-0249212P.  
 PR 17-NOV-2000; 2000US-0249213P.  
 PR 17-NOV-2000; 2000US-0249214P.  
 PR 17-NOV-2000; 2000US-0249215P.  
 PR 17-NOV-2000; 2000US-0249216P.  
 PR 17-NOV-2000; 2000US-0249217P.  
 PR 17-NOV-2000; 2000US-0249218P.  
 PR 17-NOV-2000; 2000US-0249244P.  
 PR 17-NOV-2000; 2000US-0249245P.  
 PR 17-NOV-2000; 2000US-0249264P.  
 PR 17-NOV-2000; 2000US-0249297P.  
 PR 17-NOV-2000; 2000US-0249299P.  
 PR 17-NOV-2000; 2000US-0249300P.  
 PR 01-DEC-2000; 2000US-0250160P.  
 PR 01-DEC-2000; 2000US-0250391P.  
 PR 05-DEC-2000; 2000US-0251030P.  
 PR 05-DEC-2000; 2000US-0251988P.  
 PR 05-DEC-2000; 2000US-0256719P.  
 PR 06-DEC-2000; 2000US-0251479P.  
 PR 08-DEC-2000; 2000US-0251856P.  
 PR 08-DEC-2000; 2000US-0251868P.  
 PR 08-DEC-2000; 2000US-0251869P.  
 PR 08-DEC-2000; 2000US-0251989P.  
 PR 08-DEC-2000; 2000US-0251990P.  
 PR 11-DEC-2000; 2000US-0254097P.  
 PR 05-JAN-2001; 2001US-0259678P.  
 XX  
 (HUMA-) HUMAN GENOME SCI INC.  
 XX  
 PI Rosen CA, Barash SC, Ruben SM;  
 XX  
 DR WPI; 2001-465566/50.  
 XX  
 PT Novel polypeptides and polynucleotides useful for diagnosing, preventing,  
 PT treating neural, immune system, muscular, reproductive, pulmonary,  
 PT cardiovascular, renal, proliferative disorders and cancerous diseases.  
 XX  
 XX Disclosure; SEQ ID NO 2001; 1180pp; English.  
 XX  
 CC The present invention relates to the isolation of novel human enzyme  
 CC polypeptides (AAU22915-AAU23814), and the cDNA and genomic sequences  
 CC encoding them. The enzyme polypeptides of the invention may comprise the  
 CC functional classes of oxidoreductases, transferases, hydrolases, lyases,  
 CC isomerases or ligases. The sequences of the invention are useful in the  
 CC diagnosis, treatment, prevention and/or prognosis of a wide range of  
 CC disorders including hyperproliferative disorders (e.g. cancer),  
 CC immunodeficiency disorders (e.g. AIDS) autoimmune disorders (e.g.  
 CC arthritis), neurological disorders (e.g. Alzheimer's disease), metabolic  
 CC disorders (e.g. phenylketonuria), inflammatory disorders (e.g. asthma),  
 CC cardiovascular disorders (e.g. atherosclerosis), blood-related disorders  
 CC (e.g. haemophilia), reproductive disorders (e.g. infertility) and  
 CC infectious disorders (e.g. influenza). The polynucleotides of the  
 CC invention can also be used in gene therapy. AAS41685-AAS42192 represent  
 CC DNA sequences encoding for the novel human enzyme polypeptides of the  
 CC invention. Note: The sequence data for this patent did not form part of  
 CC the printed specification, but was obtained in electronic format directly  
 CC from WIPO at ftp.wipo.int/pub/published\_pct\_sequences  
 XX  
 XX Sequence 2212 BP; 558 A; 537 C; 557 G; 560 T; 0 U; 0 Other;  
 Query Match 92.4%; Score 462; DB 4; Length 2212;  
 Best Local Similarity 99.2%; Pred. No. 6.6e-112;  
 Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;

|    |      |  |      |
|----|------|--|------|
| QY | 1    | ATATATGAGTAACTTGGTCTGACAGTTACCAATGCTTAATCAGTCAGGACCACTATCTCA       | 60   |
| DB | 1098 | ATATATGAGTAACTTGGTCTGACAGTTACCAATGCTTAATCAGTCAGGACCACTATCTCA       | 1039 |
| QY | 61   | GGGATCTGTCTATTTTCGTTTCATCCCATAGTTGCTGCAACTCCCGCTCGTAGATAACT        | 120  |
| DB | 1038 | GGGATCTGTCTATTTTCGTTTCAT-CCATAGTTGCTG- -ACTCCCGCTCGTAGATAACT       | 982  |
| QY | 121  | ACGATACGGGAGGGCTTACCATCTGCCCCCAGTGTGCAATGATACCGGAGACCCACG          | 180  |
| DB | 981  | ACGATACGGGAGGGCTTACCATCTGCCCCCAGTGTGCAATGATACCGG-AGACCCACG         | 923  |
| QY | 181  | CTCACCGGCTCCAGATTTTATCAGCAATAAACACGAGCCGGAAGGCGGAGCGCAGAAG         | 240  |
| DB | 922  | CTCACCGGCTCCAGATTTTATCAGCAATAAACACGAGCCGGAAGGCGGAGCGCAGAAG         | 863  |
| QY | 241  | TGGTCTCTGCAACTTTTATCCGCTCCATCCAGTCTTATTAATTGTTGCCGGAAGCTAGAGT      | 300  |
| DB | 862  | TGGTCTCTGCAACTTTTATCCGCTCCATCCAGTCTTATTAATTGTTGCCGGAAGCTAGAGT      | 803  |
| QY | 301  | AAGTAGTTCCGAGTTAATAGTTTGGCGAAAGTTTGGCAACGTTTGGCAATGCTGCAAGCATCTGTT | 360  |
| DB | 802  | AAGTAGTTCCGAGTTAATAGTTTGGCGAAAGTTTGGCAACGTTTGGCAATGCTGCAAGCATCTGTT | 743  |
| QY | 361  | GTCACGCTCGTCTGTTGGTATGCTTTCATTTCAGCTCCGTTTCCCAACGATCAAGGCGAGT      | 420  |
| DB | 742  | GTCACGCTCGTCTGTTGGTATGCTTTCATTTCAGCTCCGTTTCCCAACGATCAAGGCGAGT      | 683  |
| QY | 421  | TACATGATCCCCCATGTTTGTGCAAAAAGCGTTAGCTCCTTCGGTCTCCGATCGTTGT         | 480  |
| DB | 682  | TACATGATCCCCCATGTTTGTGCAAAAAGCGTTAGCTCCTTCGGTCTCCGATCGTTGT         | 623  |
| QY | 481  | CAGAAGTAAGTTGGCGGCGAG  | 500  |
| DB | 622  | CAGAAGTAAGTTGGCGGCGAG  | 603  |

RESULT 14  
 AAK85505/c  
 ID AAK85505 standard; DNA; 2212 BP.  
 XX  
 AC AAK85505;  
 XX  
 DT 07-NOV-2001 (first entry)  
 XX  
 DE Human immune/haematopoietic antigen genomic sequence SEQ ID NO:40317.  
 XX  
 KW Human; immune; haematopoietic; immune/haematopoietic antigen; cancer;  
 KW cytostatic; gene therapy; vaccine; metastasis; ds.  
 XX  
 OS Homo sapiens.  
 XX  
 PN WO200157182-A2.  
 XX  
 PD 09-AUG-2001.  
 XX  
 PF 17-JAN-2001; 2001WO-US001354.  
 XX  
 PR 31-JAN-2000; 2000US-0179065P.  
 PR 04-FEB-2000; 2000US-0180628P.  
 PR 24-FEB-2000; 2000US-0184664P.  
 PR 02-MAR-2000; 2000US-0186350P.  
 PR 16-MAR-2000; 2000US-0189874P.  
 PR 17-MAR-2000; 2000US-0190076P.  
 PR 18-APR-2000; 2000US-0198123P.  
 PR 19-MAY-2000; 2000US-0205515P.  
 PR 07-JUN-2000; 2000US-0209467P.  
 PR 28-JUN-2000; 2000US-0214886P.  
 PR 30-JUN-2000; 2000US-0215135P.  
 PR 07-JUL-2000; 2000US-0216647P.  
 PR 07-JUL-2000; 2000US-0216880P.  
 PR 11-JUL-2000; 2000US-0217487P.



\* diagnose and treat immune/haematopoietic-related diseases, especially  
CC cancers and cancer metastases of haematopoietic-derived cells. AAK64703  
CC to AAK67694 represent human immune/haematopoietic antigen genomic  
CC sequences from the present invention. AAK54942 to AAK54950 and AAK82169  
CC represent sequences used in the exemplification of the present invention  
XX  
SQ Sequence 2212 BP; 558 A; 537 C; 557 G; 560 T; 0 U; 0 Other;

Query Match 92.4%; Score 462; DB 4; Length 2212;  
Best Local Similarity 99.2%; Pred. No. 6.6e-112;  
Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;  
Qy 1 ATATATGAGTAAACTTGGCTGACAGTACCAATGCTTAATCAGTACGAGGACCTATCTCA 60  
Db 1098 ATATATGAGTAAACTTGGCTGACAGTACCAATGCTTAATCAGTACGAGGACCTATCTCA 1039  
Qy 61 GCGATCTGTCTATTTTGGTTCCATCCCAATGCTGCAACTCCCGCTGCTAGATAACT 120  
Db 1038 GCGATCTGTCTATTTTGGTTCCATCCCAATGCTGCAACTCCCGCTGCTAGATAACT 982  
Qy 121 ACGATACGGAGGCTTACCATCTGCGCCCGAGTCTGCAATGATACCGCAAGCCACG 180  
Db 981 ACGATACGGAGGCTTACCATCTGCGCCCGAGTCTGCAATGATACCGCG-AGACCCACG 923  
Qy 181 CTCACCGCTCCAGATTTATCAGCAATAAACCCAGCCGAGGCGCGCAGAAG 240  
Db 922 CTCACCGCTCCAGATTTATCAGCAATAAACCCAGCCGAGGCGCGCAGAAG 863  
Qy 241 TGGTCTGCAACTTATCCGCTCCATCCAGTCTATTAATGTTGCGGGAAGCTAGAGT 300  
Db 862 TGGTCTGCAACTTATCCGCTCCATCCAGTCTATTAATGTTGCGGGAAGCTAGAGT 803  
Qy 301 AAGTAGTTCGCGAGTTAATAGTTTGGCAACGTTTGGCCATGCTGCGGCAATCGTGT 360  
Db 802 AAGTAGTTCGCGAGTTAATAGTTTGGCAACGTTTGGCCATGCTGCGGCAATCGTGT 743  
Qy 361 GTCACGCTCGTGGTTGGTATGCTTCATTCAGTCCGTTCCCAACGATCAAGGCGAGT 420  
Db 742 GTCACGCTCGTGGTTGGTATGCTTCATTCAGTCCGTTCCCAACGATCAAGGCGAGT 683  
Qy 421 TACATGATCCCCATGTTGGCAAAAGCGTTAGTCTCTTGGTCTCCGATCCTTGT 480  
Db 682 TACATGATCCCCATGTTGGCAAAAGCGTTAGTCTCTTGGTCTCCGATCCTTGT 623  
Qy 481 CAGAAGTAAGTTGGCGCGAG 500  
Db 622 CAGAAGTAAGTTGGCGCGAG 603

RESULT 15  
AAK69629/c  
ID AAK69629 standard; DNA; 2212 BP.  
XX  
XX  
AC AAK69629;  
XX  
XX  
DT 06-NOV-2001 (first entry)  
XX  
XX Human immune/haematopoietic antigen genomic sequence SEQ ID NO:24441.  
DE Human; immune; haematopoietic; immune/haematopoietic antigen; cancer;  
KW cytoetic; gene therapy; vaccine; metastasis; db.  
XX Homo sapiens.  
XX  
XX WO200157182-A2.  
XX  
XX 09-AUG-2001.  
XX  
XX 17-JAN-2001; 2001WO-US001354.  
XX  
XX 31-JAN-2000; 2000US-0179065P.  
PR 04-FEB-2000; 2000US-0180628P.  
PR 24-FEB-2000; 2000US-0184664P.  
PR

PR 02-MAR-2000; 2000US-0186350P.  
PR 16-MAR-2000; 2000US-0189874P.  
PR 17-MAR-2000; 2000US-0190076P.  
PR 18-APR-2000; 2000US-0198123P.  
PR 19-MAY-2000; 2000US-0205515P.  
PR 07-JUN-2000; 2000US-0209467P.  
PR 28-JUN-2000; 2000US-0214886P.  
PR 30-JUN-2000; 2000US-0215135P.  
PR 07-JUL-2000; 2000US-0216647P.  
PR 07-JUL-2000; 2000US-0216800P.  
PR 11-JUL-2000; 2000US-0217487P.  
PR 11-JUL-2000; 2000US-0217496P.  
PR 14-JUL-2000; 2000US-0218290P.  
PR 26-JUL-2000; 2000US-0220964P.  
PR 14-AUG-2000; 2000US-0224518P.  
PR 14-AUG-2000; 2000US-0224519P.  
PR 14-AUG-2000; 2000US-0225213P.  
PR 14-AUG-2000; 2000US-0225214P.  
PR 14-AUG-2000; 2000US-0225266P.  
PR 14-AUG-2000; 2000US-0225267P.  
PR 14-AUG-2000; 2000US-0225268P.  
PR 14-AUG-2000; 2000US-0225270P.  
PR 14-AUG-2000; 2000US-0225447P.  
PR 14-AUG-2000; 2000US-022547P.  
PR 14-AUG-2000; 2000US-0225757P.  
PR 14-AUG-2000; 2000US-0225758P.  
PR 18-AUG-2000; 2000US-0226279P.  
PR 22-AUG-2000; 2000US-0226681P.  
PR 22-AUG-2000; 2000US-0226686P.  
PR 22-AUG-2000; 2000US-0227182P.  
PR 23-AUG-2000; 2000US-0227009P.  
PR 30-AUG-2000; 2000US-0228924P.  
PR 01-SEP-2000; 2000US-0229287P.  
PR 01-SEP-2000; 2000US-0229343P.  
PR 01-SEP-2000; 2000US-0229344P.  
PR 01-SEP-2000; 2000US-0229345P.  
PR 05-SEP-2000; 2000US-0229509P.  
PR 05-SEP-2000; 2000US-0229513P.  
PR 06-SEP-2000; 2000US-0230437P.  
PR 06-SEP-2000; 2000US-0230438P.  
PR 08-SEP-2000; 2000US-0231242P.  
PR 08-SEP-2000; 2000US-0231243P.  
PR 08-SEP-2000; 2000US-0231244P.  
PR 08-SEP-2000; 2000US-0231413P.  
PR 08-SEP-2000; 2000US-0231414P.  
PR 08-SEP-2000; 2000US-0232080P.  
PR 08-SEP-2000; 2000US-0232081P.  
PR 12-SEP-2000; 2000US-0231968P.  
PR 14-SEP-2000; 2000US-0232397P.  
PR 14-SEP-2000; 2000US-0232398P.  
PR 14-SEP-2000; 2000US-0232399P.  
PR 14-SEP-2000; 2000US-0232400P.  
PR 14-SEP-2000; 2000US-0232401P.  
PR 14-SEP-2000; 2000US-0233063P.  
PR 14-SEP-2000; 2000US-0233064P.  
PR 14-SEP-2000; 2000US-0233065P.  
PR 21-SEP-2000; 2000US-0234223P.  
PR 21-SEP-2000; 2000US-0234274P.  
PR 25-SEP-2000; 2000US-0234997P.  
PR 25-SEP-2000; 2000US-0234998P.  
PR 26-SEP-2000; 2000US-0235484P.  
PR 27-SEP-2000; 2000US-0235834P.  
PR 27-SEP-2000; 2000US-0235836P.  
PR 29-SEP-2000; 2000US-0236327P.  
PR 29-SEP-2000; 2000US-0236367P.  
PR 29-SEP-2000; 2000US-0236368P.  
PR 29-SEP-2000; 2000US-0236369P.  
PR 29-SEP-2000; 2000US-0236370P.  
PR 02-OCT-2000; 2000US-0236802P.  
PR 02-OCT-2000; 2000US-0237037P.  
PR 02-OCT-2000; 2000US-0237038P.  
PR 02-OCT-2000; 2000US-0237039P.

CC amino acid sequences given in AAK82170 to AAK91921. (I) have cytostatic activity, and can be used in gene therapy and vaccine production. (I) proteins and polynucleotides may be used in the prevention, diagnosis and treatment of diseases associated with inappropriate (I) expression. For example, they may be used to treat disorders associated with decreased expression by rectifying mutations or deletions in a patient's genome that affect the activity of (I) by expressing inactive proteins or to supplement the patients own production of (I). Additionally, (I) CC polynucleotides may be used to produce the secreted (I), by inserting the nucleic acids into a host cell and culturing the cell to express the protein. (I) proteins and polynucleotides may be used to prevent, diagnose and treat immune/haematopoietic-related diseases, especially cancers and cancer metastases of haematopoietic-derived cells. AAK64703 to AAK87694 represent human immune/haematopoietic antigen genomic CC sequences from the present invention. AAK54942 to AAK54950 and AAK82169 CC represent sequences used in the exemplification of the present invention XX

SQ Sequence 2212 BP; 558 A; 537 C; 557 G; 560 T; 0 U; 0 Other;

Query Match 92.4%; Score 462; DB 4; Length 2212;  
Best Local Similarity 99.2%; Pred. NO. 6.6e-112;  
Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;

QY 1 ATATATGAGTAACTTGGTCTGACAGTTACCAATGCTTAAATCAGTACGACACCTATCTCA 60  
DB 1098 ATATATGAGTAACTTGGTCTGACAGTTACCAATGCTTAAATCAGTACGACACCTATCTCA 1039

QY 61 GCGATCTGTCTATTTTGGTCTGACAGTTACCAATGCTTAAATCAGTACGACACCTATCTCA 120  
DB 1038 GCGATCTGTCTATTTTGGTCTGACAGTTACCAATGCTTAAATCAGTACGACACCTATCTCA 982

QY 121 ACGATACGGAGGGCTTACCAATGCTTAAATCAGTACGACACCTATCTCA 180  
DB 981 ACGATACGGAGGGCTTACCAATGCTTAAATCAGTACGACACCTATCTCA 923

QY 181 CTCACCGGCTCCAGATTTTATCAGCAATTAACACGAGCGGAGGCGGAGCGCAGAG 240  
DB 922 CTCACCGGCTCCAGATTTTATCAGCAATTAACACGAGCGGAGGCGGAGCGCAGAG 863

QY 241 TGGTCTCTGCAACTTTATCCGCTTCCATCCAGTCTTATTAATTTGTCGGGAAAGCTAGAGT 300  
DB 862 TGGTCTCTGCAACTTTATCCGCTTCCATCCAGTCTTATTAATTTGTCGGGAAAGCTAGAGT 803

QY 301 AAGTAGTTCGCCAGTTAAATAGTTTGGCAACGTTGTCGCAATGTCGAGGCAATCGTGGT 360  
DB 802 AAGTAGTTCGCCAGTTAAATAGTTTGGCAACGTTGTCGCAATGTCGAGGCAATCGTGGT 743

QY 361 GTCACGCTCGTGGTGGTATGCTTCAATTCAGCTCCGCTTCCCAACGATCAAGGCGAGT 420  
DB 742 GTCACGCTCGTGGTGGTATGCTTCAATTCAGCTCCGCTTCCCAACGATCAAGGCGAGT 683

QY 421 TACATGATCCCCCATGTTGTGCAAAAAGCGGTTAGCTCCTTCCGCTCCTCCGATCGTTGT 480  
DB 682 TACATGATCCCCCATGTTGTGCAAAAAGCGGTTAGCTCCTTCCGCTCCTCCGATCGTTGT 623

QY 481 CAGAAGTAAGTTGGCGCGAG 500  
DB 622 CAGAAGTAAGTTGGCGCGAG 603

Search completed: April 29, 2005, 04:31:45  
Job time : 441 secs

PR 02-OCT-2000; 2000US-0237040P.  
PR 13-OCT-2000; 2000US-0239935P.  
PR 13-OCT-2000; 2000US-0239937P.  
PR 20-OCT-2000; 2000US-0240960P.  
PR 20-OCT-2000; 2000US-0241221P.  
PR 20-OCT-2000; 2000US-0241785P.  
PR 20-OCT-2000; 2000US-0241786P.  
PR 20-OCT-2000; 2000US-0241787P.  
PR 20-OCT-2000; 2000US-0241808P.  
PR 20-OCT-2000; 2000US-0241809P.  
PR 01-NOV-2000; 2000US-0241826P.  
PR 01-NOV-2000; 2000US-0244617P.  
PR 08-NOV-2000; 2000US-0246474P.  
PR 08-NOV-2000; 2000US-0246475P.  
PR 08-NOV-2000; 2000US-0246476P.  
PR 08-NOV-2000; 2000US-0246477P.  
PR 08-NOV-2000; 2000US-0246523P.  
PR 08-NOV-2000; 2000US-0246523P.  
PR 08-NOV-2000; 2000US-0246525P.  
PR 08-NOV-2000; 2000US-0246526P.  
PR 08-NOV-2000; 2000US-0246527P.  
PR 08-NOV-2000; 2000US-0246528P.  
PR 08-NOV-2000; 2000US-0246532P.  
PR 08-NOV-2000; 2000US-0246609P.  
PR 08-NOV-2000; 2000US-0246610P.  
PR 08-NOV-2000; 2000US-0246611P.  
PR 08-NOV-2000; 2000US-0246613P.  
PR 17-NOV-2000; 2000US-0249207P.  
PR 17-NOV-2000; 2000US-0249208P.  
PR 17-NOV-2000; 2000US-0249209P.  
PR 17-NOV-2000; 2000US-0249210P.  
PR 17-NOV-2000; 2000US-0249211P.  
PR 17-NOV-2000; 2000US-0249212P.  
PR 17-NOV-2000; 2000US-0249213P.  
PR 17-NOV-2000; 2000US-0249214P.  
PR 17-NOV-2000; 2000US-0249215P.  
PR 17-NOV-2000; 2000US-0249216P.  
PR 17-NOV-2000; 2000US-0249217P.  
PR 17-NOV-2000; 2000US-0249218P.  
PR 17-NOV-2000; 2000US-0249244P.  
PR 17-NOV-2000; 2000US-0249245P.  
PR 17-NOV-2000; 2000US-0249264P.  
PR 17-NOV-2000; 2000US-0249265P.  
PR 17-NOV-2000; 2000US-0249297P.  
PR 17-NOV-2000; 2000US-0249299P.  
PR 17-NOV-2000; 2000US-0249300P.  
PR 01-DEC-2000; 2000US-0250160P.  
PR 01-DEC-2000; 2000US-0250391P.  
PR 05-DEC-2000; 2000US-0251030P.  
PR 05-DEC-2000; 2000US-0251988P.  
PR 05-DEC-2000; 2000US-0256719P.  
PR 08-DEC-2000; 2000US-0251479P.  
PR 08-DEC-2000; 2000US-0251856P.  
PR 08-DEC-2000; 2000US-0251868P.  
PR 08-DEC-2000; 2000US-0251869P.  
PR 08-DEC-2000; 2000US-0251989P.  
PR 08-DEC-2000; 2000US-0251990P.  
PR 11-DEC-2000; 2000US-0254097P.  
PR 03-JAN-2001; 2001US-02559678P.  
XX  
XX (HUMA-) HUMAN GENOME SCI INC.  
XX  
XX PI Rosen CA, Barash SC, Ruben SM;  
XX WPI; 2001-483426/52.  
XX  
XX Nucleic acids encoding human immune/hematopoietic antigen polypeptides,  
XX useful for preventing, diagnosing and/or treating cancers and metastasis.  
XX  
XX Disclosure; SEQ ID NO 24441; 3071pp + Sequence Listing; English.  
XX  
XX AAK54951 to AAK64702 encode the human immune/haematopoietic antigen (I)

**THIS PAGE BLANK (USPTO)**



GenCore version 5.1.6  
Copyright (c) 1993 - 2005 Compugen Ltd.

OM nucleic - nucleic search, using sw model

Run on: April 29, 2005, 02:02:08 ; Search time 2527 Seconds  
(without alignments)  
7531.514 Million cell updates/sec

Title: US-10-043-160-5\_COPY\_1\_500

Perfect score: 500

Sequence: 1 atatagagtaacttggtc.....cagaagtaagttggccgcag 500

Scoring table: IDENTITY NUC

Gapop 10.0 , Gapext 1.0

Searched: 34239544 seqs, 19032134700 residues

Total number of hits satisfying chosen parameters: 68479088

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

EST:\*

1: gb\_est1:\*

2: gb\_est2:\*

3: gb\_hic:\*

4: gb\_est3:\*

5: gb\_est4:\*

6: gb\_est5:\*

7: gb\_est6:\*

8: gb\_gest1:\*

9: gb\_gest2:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

| Result No. | Score | Query Match | Length | DB ID | Description        |
|------------|-------|-------------|--------|-------|--------------------|
| 1          | 460.4 | 92.1        | 758    | 9     | CL422788 AE0544 Sa |
| 2          | 460.4 | 92.1        | 832    | 4     | BG923768 602825893 |
| 3          | 459.4 | 91.9        | 635    | 1     | AV610355 AV610355  |
| 4          | 449.4 | 89.9        | 523    | 1     | AV610857 AV610857  |
| 5          | 446.8 | 89.4        | 854    | 4     | EM438950 Iplvr0049 |
| 6          | 445.8 | 89.2        | 659    | 6     | CD240106 DTL3P2A4  |
| 7          | 444.4 | 88.9        | 626    | 4     | BJ695105 BJ695105  |
| 8          | 442.4 | 88.5        | 721    | 9     | AG011001 Homo sapi |
| 9          | 438.8 | 87.8        | 689    | 9     | AG014394 Homo sapi |
| 10         | 437.4 | 87.5        | 1013   | 4     | EM438846 Iplvr0015 |
| 11         | 436.6 | 87.3        | 698    | 9     | AG009976 Homo sapi |
| 12         | 426.4 | 85.3        | 819    | 6     | CD649375 Cvgnd0008 |
| 13         | 425.2 | 85.0        | 580    | 2     | AW063173 TN0336 KR |
| 14         | 396.8 | 79.4        | 610    | 1     | AV610675 AV610675  |
| 15         | 396.8 | 79.4        | 796    | 5     | BQ152411 NF018A07I |
| 16         | 389.4 | 77.9        | 733    | 8     | BZ049372 jnr50B10. |
| 17         | 389.2 | 77.8        | 706    | 1     | AV752742 AV752742  |
| 18         | 388.4 | 77.7        | 773    | 4     | BI686035 603313001 |
| 19         | 388.4 | 77.7        | 855    | 4     | BI664231 603289174 |
| 20         | 388.4 | 77.7        | 888    | 4     | BI684711 603307057 |
| 21         | 386.8 | 77.4        | 911    | 4     | BG923556 602823195 |
| 22         | 386.8 | 77.2        | 919    | 4     | BI688972 603313450 |
| 23         | 381.4 | 76.3        | 477    | 1     | AV605606 AV605606  |
| 24         | 377.8 | 75.6        | 872    | 4     | BI855537 603382628 |

ALIGNMENTS

RESULT 1  
LOCUS CL422788  
DEFINITION AE0544 Sanger Institute Gene Trap Library pGT01xr Mus musculus  
cDNA, mRNA sequence.  
ACCESSION CL422788  
VERSION CL422788.1 GI:45362863  
KEYWORDS GSS.  
SOURCE Mus musculus (house mouse)  
ORGANISM Mus musculus  
REFERENCE 1 (bases 1 to 758)  
AUTHORS Sanger Institute Gene Trap Resource - SIGTR.  
TITLE http://www.sanger.ac.uk/PostGenomics/genetrap/  
JOURNAL Unpublished (2003)  
COMMENT Contact: Sanger Institute Gene Trap Resource - SIGTR  
Wellcome Trust Sanger Institute  
Email: info.genetrap@sanger.ac.uk  
Sequence tag generated by 5' RACE of total RNA from gene trap ES cell line. ES cell lines harboring insertion mutation of target gene are available upon request from Sanger Institute Gene Trap Resource. Annotation information available from  
http://www.sanger.ac.uk/PostGenomics/genetrap/  
Class: Gene Trap.

FEATURES  
source  
Location/Qualifiers  
1..758  
/organism="Mus musculus"  
/mol\_type="mRNA"  
/strain="129 OLA"  
/db\_xref="taxon:10090"  
/sex="Male"  
/cell\_type="Embryonic Stem Cell"  
/clone\_lib="Sanger Institute Gene Trap Library pGT01xr"  
/notes="Vector: pGT01xr"

ORIGIN  
Query Match 92.1%; Score 460.4; DB 9; Length 758;  
Best Local Similarity 99.0%; Pred. No. 7.8e-139;  
Matches 495; Conservative 0; Mismatches 1; Indels 4; Gaps 3;

Qy 1 ATATATGAGTAAACTTGGTCTGACAGTACCAATGCTATATCAGTGAGGCACCTATCTCA 60  
Db 201 ATATATGAGTAAACTTGGTCTGACAGTACCAATGCTATATCAGTGAGGCACCTATCTCA 260  
Qy 61 GCATCTGCTATTTCGTTTCATCCCATGAGTTCGCTGCACTCCCGTCGTGATGACT 120  
|||||

25 376.4 75.3 772 4 BI663926  
26 375.8 75.2 680 2 BE573901  
27 374.2 74.8 623 4 BG917200  
28 374.2 74.8 803 4 BI149831  
29 371.7 74.2 719 4 BG917284  
30 370.8 74.2 420 2 AW063354  
31 369.4 73.9 581 6 CB871785  
32 368.4 73.7 497 4 BMS24938  
33 366.2 73.2 1011 8 BZ576726  
34 365.4 73.1 420 2 BF419023  
35 365.4 73.1 430 5 BMS11713  
36 364.6 72.9 711 9 AG010947  
37 360 72.0 444 5 BMS73651  
38 359.8 72.0 486 1 AV611914  
39 359.4 71.9 507 1 AV601000  
40 358.8 71.8 721 4 BI689215  
41 352.4 70.5 789 6 CD280920  
42 347.8 69.6 902 7 CR753463  
43 346.2 69.2 462 1 AV612765  
44 345.4 69.1 752 7 CR766850  
45 345.2 69.0 935 4 BG838279

BI663926 603290483  
BE573901 601331891  
BG917200 602816665  
BI149831 602849105  
BG917284 602816565  
AW063354 TN0727 KR  
CB871785 HC05D21y  
BMS24938 sai25f10.  
BZ576726 msh2\_5071  
BF419023 UI-R-BJ2-  
BMS11713 BMS11713  
AG010947 Homo sapi  
BMS73651 BMS73651  
AV611914 AV611914  
AV601000 AV601000  
BI689215 603316534  
CD280920 G44224.42  
CR753463 DKFZP469G  
AV612765 AV612765  
CR766850 DKFZP468H  
BG838279 Gc01\_10e0

```
Db 261 GCGATCTGTCTATTTTCGTTTCAT-CCATAGTTGCTG-ACCTCCCGCTGCTGTAGATAACT 317
QY 121 ACATACGGAGGGCTTACCATCTGGCCCGCAGTGTCTGCAATGATACCGGAGACCCACG 180
Db 318 ACATACGGAGGGCTTACCATCTGGCCCGCAGTGTCTGCAATGATACCGG-AGACCCACG 376
QY 181 CTCACCGGCTCCAGATTTATCAGCAATAAACACGAGCGGAGGAGGCGGAGGAG 240
Db 377 CTCACCGGCTCCAGATTTATCAGCAATAAACACGAGCGGAGGAGGCGGAGGAG 436
QY 241 TGGTCTCTGCAACTTTATCCGCTCCATCCAGTCTATTAATTGTTGCGGGAAGCTAGAGT 300
Db 437 TGGTCTCTGCAACTTTATCCGCTCCATCCAGTCTATTAATTGTTGCGGGAAGCTAGAGT 496
QY 301 AAGTAGTTCGCCAGTTAATAGTTTGGCAACGTTGTCATTTGTCAGGCAATCGTGT 360
Db 497 AAGTAGTTCGCCAGTTAATAGTTTGGCAACGTTGTCATTTGTCAGGCAATCGTGT 556
QY 361 GTCACGCTCGTGTGGTATGCTTCATTCAGCTCCGTTCCCAAGCATCAAGGCGAGT 420
Db 557 GTCACGCTCGTGTGGTATGCTTCATTCAGCTCCGTTCCCAAGCATCAAGGCGAGT 616
QY 421 TACATGATCCCCCATGTTGTGCAAAAAGCGTTAGCTCCTTCGCTCCGATCGTTGT 480
Db 617 TACATGATCCCCCATGTTGTGCAAAAAGCGTTAGCTCCTTCGCTCCGATCGTTGT 676
QY 481 CAGAAGTAGTTGGCGCGAG 500
Db 677 CAGAAGTAGTTGGCGCGAG 696

RESULT 2
BG923768 832 bp mRNA linear EST 05-JUN-2001
LOCUS 602825893F1 NCI_CGAP_Mam6 Mus musculus cDNA clone IMAGE:4954486 5',
DEFINITION mRNA sequence.
ACCESSION BG923768.1 GI:14304244
VERSION BG923768.1
KEYWORDS EST.
SOURCE Mus musculus (house mouse)
ORGANISM Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
1 (bases 1 to 832)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
Contact: Robert Strausberg, Ph.D.
Email: cgapbs-i@mail.nih.gov
Tissue Procurement: Jeffrey Green M.D.
CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LNL)
DNA sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LNL at:
http://image.lnl.gov
Plate: LHAM0915 row: j column: 23
High quality sequence start: 32
High quality sequence stop: 823.
Location/Qualifiers
1. .832
/organism="Mus musculus"
/mol_type="mRNA"
/strain="FVB/N"
/db_xref="taxon:10090"
/clone="IMAGE:4954486"
/sex="female, virgin"
/tissue_type="infiltrating ductal carcinoma"
/dev_stage="5 months"
/lab_host="DH10B"
/clone_lib="NCI_CGAP Mam6"
/note="Organ: mammary; Vector: pCMV-SPORT6; Site:1: SalI;
Site_2: NotI; Cloned unidirectionally. Primer: Oligo dn.
```

```
Library constructed by Life Technologies. Investigator
providing samples: Jeffrey Green, M.D., NIH"

ORIGIN
Query Match 92.1%; Score 460.4; DB 4; Length 832;
Best Local Similarity 99.0%; Pred. No. 8e-139;
Matches 495; Conservative 0; Mismatches 1; Indels 4; Gaps 3;

QY 1 ATATATAGTAAACCTTGGTCTGACAGTTACCAATGCTTAATCAGTGAGGACCTATCTCA 60
Db 90 ATATATAGTAAACCTTGGTCTGACAGTTACCAATGCTTAATCAGTGAGGACCTATCTCA 149
QY 61 GCGATCTGTCTATTTTCGTTTCATCCCATAGTTGCTCCGCAACTCCCGTCTGTGTAGATACT 120
Db 150 GCGATCTGTCTATTTTCGTTTCAT-CCATAGTTGCTGTG-ACCTCCCGCTGCTGTAGATACT 206
QY 121 ACGATACGGAGGGCTTACCATCTGCGCCCGCAGTGTGCAATGATACCGGGAAGACCCACG 180
Db 207 ACGATACGGAGGGCTTACCATCTGCGCCCGCAGTGTGCAATGATACCGCG-AGACCCACG 265
QY 181 CTCACCGGCTCCAGATTTATCAGCAATAAACACGAGCGGAGGCGGAGGCGAGAG 240
Db 266 CTCACCGGCTCCAGATTTATCAGCAATAAACACGAGCGGAGGCGGAGGCGAGAG 325
QY 241 TGGTCTCTGCAACTTTATCCGCTCCATCCAGTCTATTAATTGTTGCGGGAAGCTAGAGT 300
Db 326 TGGTCTCTGCAACTTTATCCGCTCCATCCAGTCTATTAATTGTTGCGGGAAGCTAGAGT 385
QY 301 AAGTAGTTCGCCAGTTAATAGTTTGGCAACGTTGTCATTTGTCAGGCAATCGTGT 360
Db 386 AAGTAGTTCGCCAGTTAATAGTTTGGCAACGTTGTCATTTGTCAGGCAATCGTGT 445
QY 361 GTCACGCTCGTGTGGTATGCTTCATTCAGCTCCGTTCCCAAGCATCAAGGCGAGT 420
Db 446 GTCACGCTCGTGTGGTATGCTTCATTCAGCTCCGTTCCCAAGCATCAAGGCGAGT 505
QY 421 TACATGATCCCCCATGTTGTGCAAAAAGCGTTAGCTCCTTCGCTCCGATCGTTGT 480
Db 506 TACATGATCCCCCATGTTGTGCAAAAAGCGTTAGCTCCTTCGCTCCGATCGTTGT 565
QY 481 CAGAAGTAGTTGGCGCGAG 500
Db 566 CAGAAGTAGTTGGCGCGAG 585

AV610355 635 bp mRNA linear EST 28-NOV-2001
LOCUS AV610355 Bos taurus lung fetus Bos taurus cDNA clone BIL0031H05 3',
DEFINITION mRNA sequence.
ACCESSION AV610355.1 GI:9746025
VERSION AV610355.1
KEYWORDS EST.
SOURCE Bos taurus (cow)
ORGANISM Bos taurus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
Bovinae; Bos.
1 (bases 1 to 635)
Takasuga,A., Hirotsune,S., Itoh,R., Jitohzono,A., Suzuki,H., Aso,H.
and Sugimoto,Y.
Establishment of a high throughput EST sequencing system using
poly(A) tail-removed cDNA libraries and determination of 36,000
bovine ESTs
Nucleic Acids Res. 29 (22), E108 (2001)
21570554
11713328
Contact: Yoshikazu Sugimoto
Animal Genetics Division
Shirakawa Institute of Animal Genetics
Odakura, Nishigo, Nishi-shirakawa, Fukushima 961-8061, Japan
Tel: 81-248-25-5641
Fax: 81-248-25-5725
```

Email: kazuugi@cocoa.ocn.ne.jp

Single pass sequencing.  
This clone was obtained from a polyA-deleted cDNA library.

## FEATURES

```

source
1..635
/organism="Bos taurus"
/mol_type="mRNA"
/db_xref="taxon:9913"
/clone="E1U035B04"
/tissue_type="lung"
/dev_stage="fetus"
/lab_host="DH108"
/clone_lib="Bos taurus lung fetus"
/notes="Vector: pZLI; Site 1: SalI; Site 2: NotI; Poly A
was deleted from a NotI site"

```

## ORIGIN

```

Query Match      91.9%; Score 459.4; DB 1; Length 635;
Best Local Similarity 98.8%; Pred. No. 1.6e-138;
Matches 494; Conservative 0; Mismatches 2; Indels 4; Gaps 3;

QY 1 ATATATGAGTAACCTGGCTGACAGTTACCAATGCTTAATCAGTGAGGACCTATCTCA 60
DB 528 ATATATGAGTAACCTGGCTGACAGTTACCAATGCTTAATCAGTGAGGACCTATCTCA 469

QY 61 GCGATCTGTCTATTTCGTTTCATCCCATGAGTTCCTGCAACTCCCGCTCGTGTAGATAACT 120
DB 468 GCGATCTGTCTATTTCGTTTCAT-CCATAGTTGCTG- -ACTCCCGCTCGTGTAGATAACT 412

QY 121 ACATACGGGAGGGCTTACCATCTGGCCCCCAGTCTGCAATGATACCGGCAAGCCACG 180
DB 411 ACATACGGGAGGGCTTACCATCTGGCCCCCAGTCTGCAATGATACCGGCG-AGACCCACG 353

QY 181 CTCACCGGCTCCAGATTATCAGCAATAAACACAGCCAGCGGAGGCGGAGCGCAGAAG 240
DB 352 CTCACCGGCTCCAGATTATCAGCAATAAACACAGCCAGCGGAGGCGGAGCGCAGAAG 293

QY 241 TGGTCTCTGCAACTTTATTCGCTCCATCCAGTCTTATTAATTTGTCGGGGAAGCTAGAGT 300
DB 292 TGGTCTCTGCAACTTTATTCGCTCCATCCAGTCTTATTAATTTGTCGGGGAAGCTAGAGT 233

QY 301 AAGTAGTTCGCCAGTTAATAGTTTGGCAACGTTGTCATTCGCTGTCGAGGATCGTGGT 360
DB 232 AAGTAGTTCGCCAGTTAATAGTTTGGCAACGTTGTCATTCGCTGTCGAGGATCGTGGT 173

QY 361 GTACAGCTCGTCTGTTGGTATGCTTCATTACGCTCCGGTTCCCAACGATCAAGGCGAGT 420
DB 172 GTACAGCTCGTCTGTTGGTATGCTTCATTACGCTCCGGTTCCCAACGATCAAGGCGAGT 113

QY 421 TACATGATCCCCCATGTTGTGCAAAAAGCGGTTAGCTCCTTCGGTCTCTCCGATCGTTGT 480
DB 112 TACATGATCCCCCATGTTGTGCAAAAAGCGGTTAGCTCCTTCGGTCTCTCCGATCGTTGT 53

QY 481 CAGAAGTAAGTTGGCCGCGAG 500
DB 52 CAGAAGTAAGTTGGCCGCGAG 33

```

## RESULT 4

AV610857/c AV610857 523 bp mRNA linear EST 28-NOV-2001  
LOCUS AV610857 Bos taurus lung fetus Bos taurus cDNA clone E1U035B04 3'

## DEFINITION

mRNA sequence.

## VERSION

AV610857.1 GI:9746527

## KEYWORDS

EST.

## ORGANISM

Bos taurus (cow)  
Bos taurus  
Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;  
Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;  
Bovinae; Bos.

## REFERENCE

1 (bases 1 to 523)  
Takaeu, A., Hirotsune, S., Itoh, R., Jitohzono, A., Suzuki, H., Aso, H.

## TITLE

Establishment of a high throughput EST sequencing system using  
poly(A) tail-removed cDNA libraries and determination of 36,000  
bovine ESTs

## JOURNAL

Nucleic Acids Res. 29 (22), E108 (2001)

## MEDLINE

21570554

## COMMENT

Contact: Yoshikazu Sugimoto  
Animal Genetics Division  
Shirakawa Institute of Animal Genetics  
Odakura, Nishigo, Nishi-shirakawa, Fukushima 961-8061, Japan  
Tel: 81-248-25-5641  
Fax: 81-248-25-5725  
Email: kazuugi@cocoa.ocn.ne.jp  
Single pass sequencing.  
This clone was obtained from a polyA-deleted cDNA library.

## FEATURES

Location/Qualifiers

```

1..523
/organism="Bos taurus"
/mol_type="mRNA"
/db_xref="taxon:9913"
/clone="E1U035B04"
/tissue_type="lung"
/dev_stage="fetus"
/lab_host="DH108"
/clone_lib="Bos taurus lung fetus"
/notes="Vector: pZLI; Site 1: SalI; Site 2: NotI; Poly A
was deleted from a NotI site"

```

## ORIGIN

```

Query Match      89.9%; Score 449.4; DB 1; Length 523;
Best Local Similarity 98.8%; Pred. No. 2.8e-135;
Matches 495; Conservative 0; Mismatches 1; Indels 5; Gaps 4;

QY 1 ATATATGAGTAACCTGGCTGACAGTTACCAATGCTTAATCAGTGAGGACCTATCTCA 60
DB 506 ATATATGAGTAACCTGGCTGACAGTTACCAATGCTTAATCAGTGAGGACCTATCTCA 447

QY 61 GCGATCTGTCTATTTCGTTTCATCCCATGAGTTCGCTGCAACTCCCGCTCGTGTAGATAACT 120
DB 446 GCGATCTGTCTATTTCGTTTCAT-CCATAGTTGCTG- -ACTCCCGCTCGTGTAGATAACT 390

QY 121 ACATACGGGAGGGCTTACCATCTGGCCCCCAGTCTGCAATGATACCGGCAAGCCACG 180
DB 389 ACATACGGGAGGGCTTACCATCTGGCCCCCAGTCTGCAATGATACCGGCG-AGACCCACG 331

QY 181 CTCACCGGCTCCAGATTATCAGCAATAAACACAGCCAGCGGAGGCGGAGCGCAGAAG 240
DB 330 CTCACCGGCTCCAGATTATCAGCAATAAACACAGCCAGCGGAGGCGGAGCGCAGAAG 271

QY 241 TGGTCTCTGCAACTTTATTCGCTCCATCCAGTCTTATTAATTTGTCGGGGAAGCTAGAGT 300
DB 270 TGGTCTCTGCAACTTTATTCGCTCCATCCAGTCTTATTAATTTGTCGGGGAAGCTAGAGT 211

QY 301 AAGTAGTTCGCCAGTTAATAGTTTGGCAACGTTGTCATTCGCTGTCGAGGATCGTGGT 360
DB 210 AAGTAGTTCGCCAGTTAATAGTTTGGCAACGTTGTCATTCGCTGTCGAGGATCGTGGT 151

QY 361 GTACAGCTCGTCTGTTGGTATGCTTCATTACGCTCCGGTTCCCAACGATCAAGGCGAGT 420
DB 150 GTACAGCTCGTCTGTTGGTATGCTTCATTACGCTCCGGTTCCCAACGATCAAGGCGAGT 91

QY 421 TACATGATCCCCCATGTTGTGCAAAAAGCGGTTAGCTCCTTCGGTCTCTCCGATC-GTTG 479
DB 90 TACATGATCCCCCATGTTGTGCAAAAAGCGGTTAGCTCCTTCGGTCTCTCCGATC-GTTG 31

QY 480 TCAGAAAGTAAGTTGGCCGCGAG 500
DB 30 TCAGAAAGTAAGTTGGCCGCGAG 10

```

## RESULT 5

BM438950/c

| Query Match           | 89.4%;          | Score 446.8;  | DB 4;     | Length 854; |
|-----------------------|-----------------|---|-----------|-------------|
| Best Local Similarity | 98.6%;          | Pred. No. 2.3e-134;   |           |             |
| Matches 493;          | Conservative 0; | Mismatches 2;   | Indels 5; | Gaps 4;     |
| QY                    | 1               | ATATATCAGTAAACTTCGTCTGCACAGTTTACCAATGCTTAATCAGTGAAGCACCTATCTCA  | 60        |             |
| DB                    | 842             | ATATATCAGTAAACTTCGTCTGCACAGTTTACCAATGCTTAATCAGTGAAGCACCTATCTCA  | 783       |             |
| QY                    | 61              | GCGATCTGTCTATTTTCGTTTCATCCCATAGTTCCTCGCAACTCCCGCTCGTGTAGATAACT  | 120       |             |
| DB                    | 782             | GCGATCTGTCTATCTCGTTTCAATCCATAGTTCGCTG--ACTCCCGCTCGTGTAGATAACT   | 726       |             |
| QY                    | 121             | ACGNATCGGAGGGCTTACCATCTGGGCCCGCAGTCTGCAATGATACCGCGNAGACCCACG    | 180       |             |
| DB                    | 725             | ACGNATCGGAGGGCTTACCATCTGGGCCCGCAGTCTGCAATGATACCGCG--AGACCCACG   | 667       |             |
| QY                    | 181             | CTCACCGGCTCCAGATTATCAGCAATAAACACGACCGCGGAAGGCCGAGCGCAGAG        | 240       |             |
| DB                    | 666             | CTCACCGGCTCCAGATTATCAGCAATAAACACGACCGCGGAAGGCCGAGCGCAGAG        | 607       |             |
| QY                    | 241             | TGGTCTCTGCAACTTTATCCGCGCTCCATCCAGTCTATTAAITGTTGCCGGGAAGCTAGAGT  | 300       |             |
| DB                    | 606             | TGGTCTCTGCAACTTTATCCGCGCTCCATCCAGTCTATTAAITGTTGCCGGGAAGCTAGAGT  | 547       |             |
| QY                    | 301             | AAGTAGTTCGCGCAGTTAATAGTTTTGCGCAACGTTTGTGGCCATTGCTGCAGCGCATCTGGT | 360       |             |
| DB                    | 546             | AAGTAGTTCGCGCAGTTAATAGTTTTGCGCAACGTTTGTGGCCATTGCTGCAGCGCATCTGGT | 487       |             |
| QY                    | 361             | GTCACGCTCGTTCGTTTGGTATGGCTTCATTACAGTCCGGTTCCCAACGATCAAGCGCAGT   | 420       |             |
| DB                    | 486             | GTCACGCTCGTTCGTTTGGTATGGCTTCATTACAGTCCGGTTCCCAACGATCAAGCGCAGT   | 427       |             |
| QY                    | 421             | TACATGATCCCCCATGTTGTGCCAAAAGCGTTAGTCTCTTCGTTCTCTCCGATCGTTGT     | 480       |             |
| DB                    | 426             | TACATGATCCCCCATGTTGTGCCAAAAGCGTTAGTCTCTTCGTTCTCTCCGATCGTTGT     | 368       |             |
| QY                    | 481             | CAGAAGTAAGTTGGCCGCAG  | 500       |             |

```

QY 434 ATGTTGTCAAAAGCGGTAGCTCTCGGTCTCGGATCGTTGTGTCAGAGTAAGTTG 493
Db 462 ATGTTGTCAAAAGCGGTAGCTCTCGGTCTCGGATCGTTGTGTCAGAGTAAGTTG 521

QY 494 GCCGAG 500
Db 522 GCCGAG 528

RESULT 7
BJ695105 626 bp mRNA linear EST 23-APR-2004
DEFINITION BJ695105 HREST library Haplochromis sp. 'red tail sheller' cDNA
LOCUS clone nos75f01, mRNA sequence.
ACCESSION BJ695105
VERSION BJ695105.1 GI:46538226
KEYWORDS EST.
SOURCE Haplochromis sp. 'red tail sheller'
ORGANISM Haplochromis sp. 'red tail sheller',
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
Acanthomorphi; Acanthopterygii; Percomorpha; Perciformes;
Labroidae; Cichlidae; Haplochromis.
REFERENCE 1 (bases 1 to 626)
Watanabe,M., Kobayashi,N., Shin-i,T., Kohara,Y. and Okada,N.
Orf sequences of cichlid in Lake Victoria are essentially same
Unpublished (2004)
JOURNAL Tadasu Shin-i
COMMENT Center For Genetic Resource Information
National Institute of Genetics
4111 Yata, Mishima, Shizuoka 411-8540, Japan
Tel: 81-559-81-6856
Fax: 81-559-81-6855
Email: tshini@genes.nig.ac.jp.
FEATURES
source
1..626
Location/Qualifiers
/organism="Haplochromis sp. 'red tail sheller'"
/mol_type="mRNA"
/db_xref="taxon:257976"
/clone="nos75f01"
/tissue_type="jaw"
/dev_stage="varied"
/clone_lib="HREST library"
ORIGIN
Query Match 88.9%; Score 444.4; DB 4; Length 626;
Best Local Similarity 99.0%; Pred. No. 1.3e-133;
Matches 479; Conservative 0; Mismatches 1; Indels 4; Gaps 3;

QY 17 GGTCTGACAGTTACCAATGCTTAATCAGTGAGGCACCTATCTCAGCGATCTGCTATTTC 76
Db 1 GGTCTGACAGTTACCAATGCTTAATCAGTGAGGCACCTATCTCAGCGATCTGCTATTTC 60

QY 77 GTTATCCCATAGTGTGCTCACTCCCTCGTGTAGATAGTAAGTACGATACGGAGGGCT 136
Db 61 GTTTCAT-CCATAGTGTGCTG--ACTCCCTCGTGTAGATAGTAAGTACGATACGGAGGGCT 117

QY 137 TACCATCTGCCCCAGTGTGCAATGATACCGGAGAGCCAGCTCACCAGCTCCAGAT 196
Db 118 TACCATCTGCCCCAGTGTGCAATGATACCGG-AGACCCAGCTCACCAGCTCCAGAT 176

QY 197 TTATCAGCAATAACACGAGCGGAGGCGGAGAGTGTCTCTGCAACTTTA 256
Db 177 TTATCAGCAATAACACGAGCGGAGGCGGAGAGTGTCTCTGCAACTTTA 236

QY 257 TCGGCTCCATCCAGTCTATTAAATTGTTGCGGGAAGCTAGATAAGTATGTCGCCAGTT 316
Db 237 TCGGCTCCATCCAGTCTATTAAATTGTTGCGGGAAGCTAGATAAGTATGTCGCCAGTT 296

QY 317 AATAGTTGCGCAACGTTGTTGCAATGCTGCAAGGATCGTGTGTCACGCTCGTGT 376
Db 297 AATAGTTGCGCAACGTTGTTGCAATGCTGCAAGGATCGTGTGTCACGCTCGTGT 356

```

```

QY 377 GGTATGCTTCATTACGTCCGTTCCCAACGATCAAGGAGGATCATGATCCCCCATG 436
Db 357 GGTATGCTTCATTACGTCCGTTCCCAACGATCAAGGAGGATCATGATCCCCCATG 416

QY 437 TTGTGCAAAAAGCGGTTAGCTCTTCGGTCTCCGATCGTTGTGCAAGTAAGTTGCCC 496
Db 417 TTGTGCAAAAAGCGGTTAGCTCTTCGGTCTCCGATCGTTGTGCAAGTAAGTTGCCC 476

QY 497 GCAG 500
Db 477 GCAG 480

RESULT 8
AG011001 721 bp DNA linear GSS 14-APR-1999
LOCUS Homo sapiens genomic DNA, 21q region, clone: 879G12X91, genomic
DEFINITION survey sequence.
ACCESSION AG011001 AG004662
VERSION AG011001.1 GI:3357935
KEYWORDS GSS.
SOURCE Homo sapiens (human)
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE 1 (bases 1 to 721)
Hattori,M., Ishii,K., Toyoda,A., Shiba,T. and Sakaki,Y.
TITLE Homo sapiens genomic DNA, chromosome 21q
JOURNAL Published Only in DataBase (1998)
REFERENCE 2 (bases 1 to 721)
Hattori,M., Ishii,K., Toyoda,A., Shiba,T. and Sakaki,Y.
TITLE Direct Submission
JOURNAL
AUTHORS Department of Science, JST Sequencing Laboratory, Kitasato University,
Sagamihara 228 Japan (E-mail:hattori@jst.ac.jp)
JOURNAL Tel:0427-78-9732, Fax:0427-78-9561
COMMENT On Feb 5, 1999 this sequence version replaced gi:2826191.
AG004662: Submitted (30-Jan-1998).
FEATURES
source
1..721
Location/Qualifiers
/organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
/chromosomes="21"
/map="21q"
/clone="879G12X91"
ORIGIN
Query Match 88.5%; Score 442.4; DB 9; Length 721;
Best Local Similarity 98.8%; Pred. No. 5.9e-133;
Matches 488; Conservative 0; Mismatches 1; Indels 5; Gaps 4;

QY 7 GAGTAACTGCTCTGACAGTTACCAATGCTTAATCAGTGAGGCACCTATCTCAGCGATC 66
Db 584 GAGTAACTGCTCTGACAGTTACCAATGCTTAATCAGTGAGGCACCTATCTCAGCGATC 526

QY 67 TGCTATTTTTCGTTTCATCCCTAGTTGCTGCAACTCCCGTCTGTGTAGATAACTAGATA 126
Db 525 TGCTATTTTTCGTTTCAT-CCATAGTTGCTG--ACTCCCGTCTGTGTAGATAACTAGATA 469

QY 127 CGGAGGGGTTACCACTCTGCCCCCAGTGTGCAATGATACCGGAGAGCCAGCTCACC 186
Db 468 CGGAGGGGTTACCACTCTGCCCCCAGTGTGCAATGATACCGG-AGACCCAGCTCACC 410

QY 187 GGCTCAGATTTTATCAGCAATAAACCCAGCCAGGCGGAGGCGGAGAGTGTGCTC 246
Db 409 GGCTCAGATTTTATCAGCAATAAACCCAGCCAGGCGGAGGCGGAGAGTGTGCTC 350

QY 247 TGCACCTTTTATCGGCTCCATCCAGTCTATTAAATTGTTGCGGGAAGCTAGATAAGTAG 306
Db 349 TGCACCTTTTATCGGCTCCATCCAGTCTATTAAATTGTTGCGGGAAGCTAGATAAGTAG 290

QY 307 TTCGCCAGTTAATAGTATTTTTCGCAACGTTGTTGCTTGTGCGAGGATCGTGTGTCACG 366

```

```

289 TTCCGAGTTAAATAGTTTGGCAACGTTGTTGCCATTGCTACAGGCATCGTGGTGTCAAG 230
367 CTGCTGTTGGTATGGCTTCATTCAGCTCCGGTTCCTCCCAACGATCAAGCGGATTCATG 426
229 CTGCTGTTGGTATGGCTTCATTCAGCTCCGGTTCCTCCCAACGATCAAGCGGATTCATG 170
427 ATCCCCCATGTTGCAAAAACGGTTAGCTCCTTCGGTCCCTCCGATCGTTCAGAAAG 486
169 ATCCCCCATGTTGCAAAAACGGTTAGCTCCTTCGGTCCCTCCGATCGTTCAGAAAG 110
487 TAAGTTGGCCGCGAG 500
109 TAAGTTGGCCGCGAG 96

```

```

RESULT 9
AG014394
LOCUS Homo sapiens genomic DNA, 21q region, clone: B355C24SpN18, genomic
DEFINITION survey sequence.
ACCESSION AG014394
VERSION AG014394.1 GI:3608292
KEYWORDS Homo sapiens (human)
SOURCE Homo sapiens
ORGANISM Homo sapiens

```

```

REFERENCE
AUTHORS Hattori,M., Ishii,K., Toyoda,A., Shiba,T. and Sakaki,Y.
TITLE Homo sapiens genomic DNA, chromosome 21q
JOURNAL Published Only in DataBase (1998)

```

```

REFERENCE
AUTHORS Hattori,M., Ishii,K., Toyoda,A., Shiba,T. and Sakaki,Y.
TITLE Direct Submission
JOURNAL Submitted (17-SEP-1998) Masahira Hattori, Kitasato University,
Department of Science, JST Sequencing Laboratory, Kitasato 1-15-1,
Sagamihara 228, Japan (E-mail:hattori@hgsc.ims.u-tokyo.ac.jp,
Tel:0427-78-9732, Fax:0427-78-9561)

```

```

FEATURES
source
1. .689
/organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
/chromosome="21"
/map="21q"
/clone="B355C24SpN18"

```

```

ORIGIN
Query Match 87.8%; Score 438.8; DB 9; Length 689;
Best Local Similarity 98.8%; Pred. No. 8.7e-132; Indels 4; Gaps 3;
Matches 474; Conservative 0; Mismatches 2;

QY 17 GGTCTGACAGTTACCAATGCTTAATCAGTCAGGAGCACCCTATCTCAGGAGATGCTGCTATTTTC 76
DB 30 GGTCTGACAGTTACCAATGCTTAATCAGTCAGGAGCACCCTATCTCAGGAGATGCTGCTATTTTC 89
QY 77 GTTCATCCCATAGTTGCTGCTCAACTCCCGTGTGTAGATAACTACGATACGGAGGGCT 136
DB 90 GTTCAT-CCATAGTTGCTG- -ACTCCCGTGTGTAGATAACTACGATACGGAGGGCT 146
QY 137 TACCATCTGCCCGCAGTCTGCAATGATACCGGAGAGACCCAGCTCACCAGGCTCCAGAT 196
DB 147 TACCATCTGCCCGCAGTCTGCAATGATACCGG-AGACCCAGCTCACCAGGCTCCAGAT 205
QY 197 TTATCAGCAATAAACACGAGCGGAGGCGGAGCGGAGAGTGTCTCTGCAACTTTA 256
DB 206 TTATCAGCAATAAACACGAGCGGAGGCGGAGCGGAGAGTGTCTCTGCAACTTTA 265
QY 257 TCGCCCTCCATCCAGTCTATTAATTGTTGCGGGAAGCTAGTAAAGTTCGCCAGTT 316
DB 266 TCGCCCTCCATCCAGTCTATTAATTGTTGCGGGAAGCTAGTAAAGTTCGCCAGTT 325

```

```

QY 317 AATAGTTTCGCAACGTTGTTGCCATTGCTGAGGCATCGTGGTGTCAAGCTCGTGGTTT 376
DB 326 AATAGTTTCGCAACGTTGTTGCCATTGCTGAGGCATCGTGGTGTCAAGCTCGTGGTTT 385
QY 377 GGTATGGCTTCATTGATGCTCCGGTTCCTCCCAACGATCAAGCGGATTCATGATCCCCCATG 436
DB 386 GGTATGGCTTCATTGATGCTCCGGTTCCTCCCAACGATCAAGCGGATTCATGATCCCCCATG 445
QY 437 TTGTGCAAAAACGGTTAGCTCCTTCGGTCCCTCCGATCGTTCAGAAAGTAAAGTTGGGC 496
DB 446 TTGTGCAAAAACGGTTAGCTCCTTCGGTCCCTCCGATCGTTCAGAAAGTAAAGTTGGGC 505

```

```

RESULT 10
BM438846/c
LOCUS BM438846
DEFINITION Iplvr00157 Liver cdna library Ictalurus punctatus cdna 5', mRNA
sequence.
ACCESSION BM438846
VERSION BM438846.1 GI:18460568
KEYWORDS EST.
SOURCE Ictalurus punctatus (channel catfish)
ORGANISM Ictalurus punctatus

```

```

REFERENCE
AUTHORS Feng,J., Kucuktas,H., Kocabas,A., Li,P. and Liu,Z.
TITLE Transcriptome of channel catfish (Ictalurus punctatus): initial
analysis of expressed sequence tags from the liver
JOURNAL Unpublished (2002)
COMMENT Contact: liu ZJ
The Fish Molecular Genetics and Biotechnology Laboratory,
Department of Fisheries and Allied Aquacultures and Program of Cell
and Molecular Biosciences
Auburn University
203 Swingle Hall, Auburn University, Auburn, AL 36849, USA
Tel: 334 844 4054
Fax: 334 844 9208
Email: zliu@acesag.auburn.edu

```

```

Seq primer: M13 Reverse
Location/Qualifiers
1. .1013
/organism="Ictalurus punctatus"
/mol_type="mRNA"
/db_xref="taxon:7998"
/clone_lib="Liver cdna library"
/note="Organ: Liver; Vector: pSport1; Site_1: NotI;
Site_2: SalI"

```

```

FEATURES
source
1. .1013
/organism="Ictalurus punctatus"
/mol_type="mRNA"
/db_xref="taxon:7998"
/clone_lib="Liver cdna library"
/note="Organ: Liver; Vector: pSport1; Site_1: NotI;
Site_2: SalI"

```

## ORIGIN

```

Query Match 87.5%; Score 437.4; DB 4; Length 1013;
Best Local Similarity 98.6%; Pred. No. 2.8e-131; Indels 6; Gaps 5;
Matches 494; Conservative 0; Mismatches 1;

QY 1 ATATATGAGTAAACTTGGTCTGACAGTTACCAATGCTTAATCAGTCAGGACCATCTCTCA 60
DB 842 ATATATGAGTAAACTTGGTCTGACAGTTACCAATGCTTAATCAGTCAGGACCATCTCTCA 783
QY 61 GCGATCTGTCTATTTCGTTTCATCCCATAGTTGCTGCAACTCCCGTGTGTAGATAACT 120
DB 782 GCGATCTGTCTATTTCGTTTCAT-CCATAGTTGCTG- -ACTCCCGTGTGTAGATAACT 726
QY 121 AGCATACGGAGGGCTTACCATCTGCCCCAGTGTGCAATGATACCGGAGACCCACG 180
DB 725 AGCATACGGAGGGCTTACCATCTGCCCCAGTGTGCAATGATACCGG-AGACCCACG 667
QY 181 CTCACCGGCTCCAGATTTATCAGCAATAAACACGAGCCGAGGCGGAGGCGCAGAGAAG 240
DB 666 CTCACCGGCTCCAGATTTATCAGCAATAAACACGAGCCGAGGCGGAGGCGCAGAGAAG 607
QY 241 TGTCTCTGCAACTTTATTCGCGCTCCATTCAGTCTATTATTTGTTGCGGGAAGCTAGAGT 300

```

```

Db      606 TGGTCTGCAACTTATCCGCTCCATCCAGTCTATTAAATTTGTCGGGAAGCTAGAGT 547
Qy      301 AAGTAGTCCCAAGTTAATAGTTGCGCAACGTTGTTGCCATTGCTGCAGGCATCGTGGT 360
Db      546 AAGTAGTCCCAAGTTAATAGTTGCGCAACGTTGTTGCCATTGCTACAGGCATCGTGGT 487
Qy      361 GTCACGCTCGTCTGTTGGTATGCTTCAATTCAGTCCGGTTCCTCCACGATCAAGCGAGT 420
Db      486 GTCACGCTCGTCTGTTGGTATGCTTCAATTCAGTCCGGTTCCTCCACGATCAAGCGAGT 427
Qy      421 TACA-TGATCCCCCATGCTGTGCAAAAAGCGGTTAGTCTCTTCGGTCCCTCCGATCGTTG 479
Db      426 TACATTGATCCCCCATGCTGTGCAAAAAGCGGTTAGTCT-CTTCGGTCTCCGATCGTTG 368
Qy      480 TCAGAAAGTAAGTTGGCCGAG 500
Db      367 TCAGAAAGTAAGTTGGCCGAG 347

RESULT 11
AG009976/c
LOCUS      Homo sapiens genomic DNA, 21q region, clone: T485XN, genomic survey
DEFINITION
ACCESSION      AG003787
VERSION        AG009976.1 GI:3289962
KEYWORDS      GSS.
SOURCE        Homo sapiens (human)
ORGANISM      Homo sapiens
REFERENCE      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
AUTHORS        Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
TITLE          Hattori,M., Ishii,K., Toyoda,A., Shiba,T. and Sakaki,Y.
JOURNAL        Homo sapiens genomic DNA, chromosome 21q
REFERENCE      2 (bases 1 to 698)
AUTHORS        Hattori,M., Ishii,K., Toyoda,A., Shiba,T. and Sakaki,Y.
TITLE          Direct Submission
JOURNAL        Submitted (06-JUL-1998) Masahira Hattori, Kitasato University,
                Department of Science, JST Sequencing Laboratory; Kitasato 1-15-1,
                Sagamihara 228 Japan (E-mail:hattori@hgc.ims.u-tokyo.ac.jp,
                Tel:0427-78-9732, Fax:0427-78-9561)
COMMENT        On Feb 5, 1999 this sequence version replaced gi:2754689.
FEATURES             Location/Qualifiers
                1..698
                /organism="Homo sapiens"
                /mol_type="genomic DNA"
                /db_xref="taxon:9606"
                /chromosome="21"
                /map="21q"
                /clone="T485XN"

ORIGIN
Query Match      87.3%; Score 436.6; DB 9; Length 698;
Best Local Similarity 98.0%; Pred. No. 4.6e-131;
Matches 485; Conservative 0; Mismatches 4; Indels 6; Gaps 4;

Qy      7 GAGTAACTGGTCTGACAGTTACCAATGCTTAATCAGTGAGGCACCTATCTCAGCG-AT 65
Db      581 GAGTAACTGGTCTGACAGTTACCAATGCTTAATCAGTGAGGCACCTATCTCAGCGAAT 522
Qy      66 CTGCTATTTCGTTTCATCCCATAGTTGCCTGCAACTCCCGTCTGTAGATACTACGAT 125
Db      521 CTGCTATTTCGTTTCAT-CCATAGTTGCCTG---ACTCCGTCGTGTAGTAACTACGAT 466
Qy      126 ACGGGAGGGCTTACCAATCTGGCCCGAGTGTGCTCAATGATACCGGAGAACCCACGCTCAC 185
Db      465 ACGGGAGGGCTTACCAATCTGGCCCGAGTGTGCTCAATGATACCGCG-AGACCCACGCTCAC 407
Qy      186 CGGCTCCAGATTTCAGCAATAAACCAGCCAGCCGAGGCGGCGGAGGAGTGGTC 245
Db      406 CGGCTCCAGATTTCAGCAATAAACCAGCCAGCCGAGGCGGCGGAGGAGTGGTC 347

```

```

Qy      246 CTGCAACTTTATCCGCTCCATCCAGTCTATTAAATTTGTTGCCGGAAGCTAGAGTA 305
Db      346 CTGCAACTTTATCCGCTCCATCCAGTCTATTAAATTTGTTGCCGGAAGCTAGAGTA 287
Qy      306 GTTCGCCAGTAAATAGTTTGGCAACGTTGTTGCCATTCTCTGAGGCATCGTGGTCTCAC 365
Db      286 GTTCGCCAGTAAATAGTTTGGCAACGTTGTTGCCATTCTCTGAGGCATCGTGGTCTCAC 227
Qy      366 GCTCGCTGTTTGGTATGGCTTCATTTCAGTCCCGTTCCCAACGATCAAGCGAGTTACAT 425
Db      226 GCTCGCTGTTTGGTATGGCTTCATTTCAGTCCCGTTCCCAACGATCAAGCGAGTTACAT 167
Qy      426 GATCCCCCATGTTGTCAAAAAGCGTTAGTCTCTTCGGTCTCTCCGATCGTTGTGAGAA 485
Db      166 GATCCCCCATGTTGTCAAAAAGCGTTAGTCTCTTCGGTCTCTCCGATCGTTGTGAGAA 107
Qy      486 GTAAGTTGGCCGAG 500
Db      106 GTAAGTTGGCCGAG 92

RESULT 12
CD649375/c
LOCUS      Crassostrea virginica Gonad Crassostrea virginica cDNA
DEFINITION      5', mRNA sequence.
ACCESSION      CD649375
VERSION        CD649375.1 GI:31906346
KEYWORDS      EST.
SOURCE        Crassostrea virginica (eastern oyster)
ORGANISM      Crassostrea virginica
REFERENCE      Eukaryota; Metazoa; Mollusca; Bivalvia; Pteriomorpha; Ostreoida;
AUTHORS        Ostreoida; Ostreidae; Crassostrea.
TITLE          1 (bases 1 to 819)
JOURNAL        Peatman,E., Kucuktas,H., Li,P., He,C., Feng,J., Wei,X. and Liu,Z.
COMMENT        Differentially expressed oyster (Crassostrea virginica) genes after
                exposure to mercury
                Unpublished (2003)
                Contact: Liu ZJ
                The Fish Molecular Genetics and Biotechnology Laboratory,
                Department of Fisheries and Allied Aquacultures and Program of Cell
                and Molecular Biosciences
                Auburn University
                203 Swingle Hall, Auburn University, Auburn, AL 36849, USA
                Tel: 334 844 4054
                Fax: 334 844 9208
                Email: zliu@acesag.auburn.edu
                Seq primer: M13 Reverse.
                Location/Qualifiers
                1..819
                /organism="Crassostrea virginica"
                /mol_type="mRNA"
                /db_xref="taxon:6565"
                /clone_lib="Crassostrea virginica Gonad"
                /note="Organ: Gonad; Vector: pSport1; Site_1: NotI;
                Site_2: SalI"

FEATURES             Location/Qualifiers
                1..819
                /organism="Crassostrea virginica"
                /mol_type="mRNA"
                /db_xref="taxon:6565"
                /clone_lib="Crassostrea virginica Gonad"
                /note="Organ: Gonad; Vector: pSport1; Site_1: NotI;
                Site_2: SalI"

ORIGIN
Query Match      85.3%; Score 426.4; DB 6; Length 819;
Best Local Similarity 98.7%; Pred. No. 1e-127;
Matches 472; Conservative 0; Mismatches 1; Indels 5; Gaps 4;

Qy      23 ACAGTTTACCAATGCTTAATCAGTGAGGCACCTATCTCAGGCATCTCTATTTCGTTCAAT 82
Db      819 ACAGTTTACCAATGCTTAATCAGTGAGGCACCTATCTCAGGCATCTCTATTTCGTTCAAT 760
Qy      83 CCCATAGTTGCTGCAACTCCCGTCTGTGTAGATACTACGATACGGAGGGCTTACCAC 142
Db      759 -CCATAGTTGCTG--ACTCCCGTCTGTGTAGATACTACGATACGGAGGGCTTACCAC 703
Qy      143 CTGGCCCGCAGTCTGCAATGATACCGGAGAACCCACGCTCACCAGCTCCAGATTATCA 202

```

702 CTGGCCCCAGTGTGCAATGATATACCGCG-AGACCCACGCTCACCGGCTCCAGATTTATCA 644  
 QY  
 203 GCAATAACACGAGCGAGCGGAGCGGAGCGGAGAGTGTCTGCAACTTTATCGGCC 262  
 Db  
 643 GCAATAACACGAGCGGAGCGGAGCGGAGAGTGTCTGCAACTTTATCGGCC 584  
 QY  
 263 TCCATCCAGTCTATTAAATTTGTCGGGGAAGCTAGAGTAAGTGTCCGAGTTAATAGT 322  
 Db  
 583 TCCATCCAGTCTATTAAATTTGTCGGGGAAGCTAGAGTAAGTGTCCGAGTTAATAGT 524  
 QY  
 323 TTGGGCAACGTTGTGCAATGCTGCAAGGATCGTGTGTCAGCTCGTGTGGTATG 382  
 Db  
 523 TTGGGCAACGTTGTGCAATGCTGCAAGGATCGTGTGTCAGCTCGTGTGGTATG 464  
 QY  
 383 GCTTCATTACGCTCCGCTTCCCAACGATCAAGCGAGTTACATGATCCCCCATGTTGTC 442  
 Db  
 463 GCTTCATTACGCTCCGCTTCCCAACGATCAAGCGAGTTACATGATCCCCCATGTTGTC 404  
 QY  
 443 AAAAAAGCGTTAGTCTCTTCGCTCCGATCGTGTGTCAGAAAGTAAGTTGGCGGAG 500  
 Db  
 403 AAAAAAGCGTTAGTCTCTTCGCTCCGATCGTGTGTCAGAAAGTAAGTTGGCGGAG 347

RESULT 13  
 AW063173  
 LOCUS  
 DEFINITION  
 ACCESSION  
 VERSION  
 KEYWORDS  
 SOURCE  
 ORGANISM  
 Eukaryota; Chordata; Craniata; Vertebrata; Euteleostomi;  
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.  
 1 (bases 1 to 580)  
 Goh, S.-H., Park, J.-H., Lee, Y.J., Lee, H.G., Yoo, H.-S., Lee, I.-C.,  
 Park, J.-H., Kim, Y.-S. and Lee, C.-C.  
 Gene expression profile and identification of differentially  
 expressed transcripts during human intrathymic T-cell development  
 by cDNA sequencing analysis  
 Genomics 70 (1), 1-18 (2000)  
 20541704  
 11087656  
 Contact: Sung-Ho Goh  
 Genome Center  
 Korea Research Institute of Bioscience and Biotechnology  
 Oun-dong 52, Yu Sung-Gu, Daejeon 305-333, Republic of Korea  
 Tel: 82-42-860-4473  
 Fax: 82-42-860-4479  
 Email: gohsh@mail.kribb.re.kr  
 Seq primer: T7  
 High quality sequence stop: 580  
 POLYA=No.

FEATURES  
 source  
 1..580  
 /organism="Homo sapiens"  
 /mol\_type="mRNA"  
 /db\_xref="taxon:9606"  
 /tissue\_type="thymus"  
 /cell\_type="Intrathymic T-cell"  
 /dev\_stage="CD3-4-8- triple negative stage"  
 /clone\_lib="KRIBB Human TN intrathymic T-cell cDNA  
 library"  
 /note="Vector: pGEM-T; cDNA was made from total  
 cytoplasmic RNA of sorted human intrathymic CD3-4-8-  
 T-cell, adaptor ligated, amplified with PCR, and cloned  
 into pGEM-T vector."

ORIGIN  
 Query Match 85.0%; Score 425.2; DB 2; Length 580;  
 Best Local Similarity 97.5%; Pred. No. 2.3e-127;  
 Matches 464; Conservative 0; Mismatches 8; Indels 4; Gaps 3;

QY  
 20 CTGACAGTTACCAATGCTTAATCAGTGAGGCACTATCTCAGCGAATCTGTCTATTTCGTT 79  
 Db  
 1 CTGACAGTTACCAATGCTTAATCAGTGAGGCACTATCTCAGCGAATCTGTCTATTTCGTT 60  
 QY  
 80 CATCCCATAGTTCCTGCACTCCCGTGTGTAGATAGTACGATACGCGAGGCTTAC 139  
 Db  
 61 CAT-CCATAGTTCCTG--ACTCCCGTGTGTAGATAACTACGATACGCGAGGCTTAC 117  
 QY  
 140 CATCTGGCCCCAGTGTGCAATGATACCGGAAAGACCCAGCTCACCGGCTCCAGATTTA 199  
 Db  
 118 CATCTGGCCCCAGTGTGCAATGATACCGG-AGACCCAGCTCACCGATCCAGATTTA 176  
 QY  
 200 TCAGCAATAAACAGCAGCGGAGGCGGAGGCGAGAGTGGTCTGCAACTTTATCC 259  
 Db  
 177 TCAGCAATAAACAGCAGCGGAGGCGGAGGCGAGAGTGGTCTGCAACTTTATCC 236  
 QY  
 260 GCCTCCATCCAGTCTATTAAATTTGTCGGGAGGCTAGAGTAAGTTCGCGCAGTTAAT 319  
 Db  
 237 GCCTCCATCCAGTCTATTAAATTTGTCGGGAGGCTAGAGTAAGTTCGCGCAGTTAAT 296  
 QY  
 320 AGTTTCGCAACGTTTGTGCCATTGCTGCAGGCGATCGTGTGTCAGCTCGTCTGTTGGT 379  
 Db  
 297 AGCCCGCGCAACGTTTGTGCCATTGCTACAGGCGATCGTGTGTCAGCTCGTCTGTTGGT 356  
 QY  
 380 ATGGCTTCATTACGCTCCCGTTCCTCCAAACGATCAAGCGAGTTACATGATCCCCCATGTTG 439  
 Db  
 357 ATGGCTTCATTACGCTCCCGTTCCTCCAAACGATCAAGCGAGTTTTCATGATCCCCCATGTTG 416  
 QY  
 440 TGCAAAAAGCGTTAGTCTCTTCGCTCCGATCGTGTGTCAGAAAGTAAGTTGGC 495  
 Db  
 417 TGCAAAAAGCGTTAGTCTCTTCGCTCCGATCGTGTGTCAGAAAGTAAGTTGGC 472

RESULT 14  
 AW610675  
 LOCUS  
 DEFINITION  
 ACCESSION  
 VERSION  
 KEYWORDS  
 SOURCE  
 ORGANISM  
 Eukaryota; Chordata; Craniata; Vertebrata; Euteleostomi;  
 Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Bovidae;  
 Bovinae; Bos.  
 1 (bases 1 to 610)  
 Takasuga, A., Hirotsune, S., Itoh, R., Jitohzono, A., Suzuki, H., Aso, H.  
 and Sugimoto, Y.  
 Establishment of a high throughput EST sequencing system using  
 poly(A) tail-removed cDNA libraries and determination of 36,000  
 bovine ESTs  
 Nucleic Acids Res. 29 (22), E108 (2001)  
 21570554  
 11713328  
 Contact: Yoshikazu Sugimoto  
 Animal Genetics Division  
 Shirakawa Institute of Animal Genetics  
 Odakura, Nishigo, Nishi-shirakawa, Fukushima 961-8061, Japan  
 Tel: 81-248-25-5641  
 Fax: 81-248-25-5725  
 Email: kazusugi@ccoc.ocn.ne.jp  
 Single pass sequencing.  
 This clone was obtained from a polyA-deleted cDNA library.  
 Location/Qualifiers  
 1..610  
 /organism="Bos taurus"  
 /mol\_type="mRNA"  
 /db\_xref="taxon:9913"  
 /clone="E11U033H06"  
 /tissue\_type="lung"  
 /dev\_stage="fetus"



```
ORIGIN
/lab_host="DH108"
/clone_lib="Bos taurus lung fetus"
/notes="Vector: pZL1; Site 1: SalI; Site 2: NotI; Poly A
was deleted from a NotI site"

Query Match      79.4%; Score 396.8; DB 1; Length 610;
Best Local Similarity 99.0%; Pred. NO. 4.9e-118;
Matches 432; Conservative 0; Mismatches 5; Indels 4; Gaps 3;

QY 1 ATATATGAGTAAACTTGGCTGACAGTTTACCAATGCTTAATCAGTGAAGGCACCTATCTCA 60
DB 174 ATATATGAGTAAACTTGGCTGACAGTTTACCAATGCTTAATCAGTGAAGGCACCTATCTCA 233
QY 61 GCGATCTGTCTATTTCCTTCCATCCCATAGTTGCTGCAACTCCCGCTGCTGTAGATAACT 120
DB 234 GCGATCTGTCTATTTCCTTCCATCCCATAGTTGCTG--ACTCCCGCTGCTGTAGATAACT 290
QY 121 ACGATCGGAGGGCTTACCATCTGGCCCGCAGTCTGCTCAATGATACCGCGAAGCCACG 180
DB 291 ACGATCGGAGGGCTTACCATCTGGCCCGCAGTCTGCTCAATGATACCGCG--AGACCCACG 349
QY 181 CTCACGGCTCCAGATTATCAGCAATAAACACGAGCCGAGGCGCGAGCGCAGAG 240
DB 350 CTCACGGCTCCAGATTATCAGCAATAAACACGAGCCGAGGCGCGAGCGCAGAG 409
QY 241 TGGTCTCTGCAACTTTATCCGCTCCATCCAGTCTTAAATTTGTCGGGGAAGCTAGAGT 300
DB 410 TGGTCTCTGCAACTTTATCCGCTCCATCCAGTCTTAAATTTGTCGGGGAAGCTAGAGT 469
QY 301 AAGTAGTTCGCCAGTTAAATAGTTGGCGAACGTTGTCATTTGCCATGCTGACGGCATCTGGT 360
DB 470 AAGTAGTTCGCCAGTTAAATAGTTGGCGAACGTTGTCATTTGCCATGCTGACGGCATCTGGT 529
QY 361 GTACAGCTCGCTGTTGGTAGTCTTCAATTCAGTCCGCTTCCCAACGATCAAGGCGAGT 420
DB 530 GTACAGCTCGCTGTTGGTAGTCTTCAATTCAGTCCGCTTCCCAACGATCAAGGCGAGT 589
QY 421 TACATGATCCCCCATGTTGTG 441
DB 590 TACATGATCCCCCATGTTGGG 610

RESULT 15
LOCUS      BQ152411
DEFINITION NF018A07IR1F1052 Irradiated Medicago truncatula cDNA clone
            NF018A07IR 5', mRNA sequence.
ACCESSION  BQ152411
VERSION    BQ152411.1 GI:20289470
KEYWORDS   EST.
SOURCE     Medicago truncatula (barrel medic)
ORGANISM   Medicago truncatula
            Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
            Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
            rosids; eurosids I; Fabales; Fabaceae; Papilionoideae; Trifolieae;
            Medicago.
            1 (bases 1 to 796)
REFERENCE  Torres-Jerez,I., Scott,A.D., Harris,A.R., Gonzales,R.A., Bell,C.J.,
            Flores,H.R., Inman,J.T., Weller,J.W. and May,G.D.
            Expressed Sequence Tags from the Samuel Roberts Noble Foundation
            Medicago truncatula irradiated library
            Unpublished (2001)
COMMENT    Contact: May GD
            Plant Biology Division
            The Samuel Roberts Noble Foundation
            2510 Sam Noble Parkway, Ardmore, OK 73402, USA
            Tel: 580 224 6650
            Fax: 580 224 6692
            Email: gdmay@noble.org
            Insert length: 796 Std Error: 0.00
            Plate: 018 row: A column: 07
            Seq primer: TCACACGGAACAGCTATGAC.
```

FEATURES  
source

```
Location/Qualifiers
1..796
/organism="Medicago truncatula"
/mol_type="mRNA"
/db_xref="taxon:3880"
/clone="NF018A07IR"
/tissue_type="seedlings"
/dev_stage="seedling"
/clone_lib="Irradiated"
/notes="Vector: Lambda Zap; Seedlings were exposed either
to 100 Gy gamma or 0.5, 1, 5, or 10 kJ/m2 UV irradiation.
Gamma-irradiated samples were harvested at 6, 12, 24 and
48 hours after treatment. UV-irradiated samples were
harvested 24 hours post-treatment. cDNA was prepared from
polyA+ enriched, pooled samples of equivalent amounts of
total RNA from each sample. The cDNA was directionally
ligated into the Uni-Zap XR vector (Stratagene) and
packaged using the Gigapack III Gold packaging extracts.
Phagemids containing cDNA inserts were in vivo excised
from the recombinant Uni-Zap XR vector using ExAssist
helper phage and the E. coli strain XL1-Blue MRP'
(Stratagene). Excised plasmids were plated using SOLR
cells."
```

## ORIGIN

```
Query Match      79.4%; Score 396.8; DB 5; Length 796;
Best Local Similarity 89.0%; Pred. NO. 4.9e-118;
Matches 443; Conservative 0; Mismatches 50; Indels 5; Gaps 4;

QY 1 ATATATGAGTAAACTTGGCTGACAGTTACCAATGCTTAATCAGTGAAGGCACCTATCTCA 60
DB 227 ATATATGAGTAAACTTGGCTGACAGTTACCAATGCTTAATCAGTGAAGGCACCTATCTCA 286
QY 61 GCGATCTGTCTATTTCCTTCCATCCCATAGTTGCTGCAACTCCCGCTGCTGTAGATAACT 120
DB 287 GCGATCTGTCTATTTCCTTCCATCCCATAGTTGCTG--ACTCCCGCTGCTGTANATAACT 343
QY 121 ACGATACGGAGGGCTTACCATCTTGCCCGCAGTCTGCAATGATACCGGGAAGACCCACG 180
DB 344 ACGATACGGAGGGCTTACCATCTTGCCCGCAGTCTGCAATGATACCGG--AGACCCACG 402
QY 181 CTCACGGCTCCAGATTATCAGCAATAAACACGAGCCGAGGCGCGAGCGCAGAG 240
DB 403 CTCACGGCTCCAGATTATCAGCAATAAACACGAGCCGAGGCGCGAGCGCAGAG 462
QY 241 TGGTCTCTGCAACTTTATCCGCTCCATCCAGTCTTAAATTTGTCGGGGAAGCTAGAGT 300
DB 463 TGGTCTCTGCAACTTTATCCGCTCCATCCANTCTATTATTGTTGCGGGAANCTANAGT 522
QY 301 AAGTAGTTCGCCAGTTAAATAGTTTGGCGAACGTTGTCATTTGCTGCGAGGCATCTGGT 360
DB 523 AANTANTTNCNCANTTTAATNTTTGGCAACNTTTGTCATTTGCTACANGCATCNTGGT 582
QY 361 GTCACGCTCGTGTGTTGATGCTTCAATTCAGTCCGGTTCCTCAACGATCAAGGCGAGT 420
DB 583 GTCACNCTCNTCNTTGTGNTATNGCTTCAATCA-CTCANNNTCCCAACGATCAANGCNANT 641
QY 421 TACATGATCCCCCATGTTGTGCAAAAAGCGGTAGTCTCTTCGGTCTCCGATCTGTTGT 480
DB 642 TACATNATCCCCCATGTTGTGNCAAAANNCNNTTANCTTCTTNGTCTCNCNATCNTTNN 701
QY 481 CAGAAGTAAGTTGGCGCG 498
DB 702 NANAANTNANTTNNCNC 719
```

Search completed: April 29, 2005, 05:15:08  
Job time : 2534 secs

THIS PAGE BLANK (USPTO)

GenCore version 5.1.6  
Copyright (c) 1993 - 2005 CompuGen Ltd.

OM nucleic - nucleic search, using sw model

Run on: April 29, 2005, 02:23:53 ; Search time 146 Seconds  
(without alignments)  
5603.687 Million cell updates/sec

Title: US-10-043-160-5\_COPY\_1\_500

Perfect score: 500

Sequence: 1 atatagtagtaacttggtc.....cagaagtaagtggccgcag 500

Scoring table: IDENTITY NUC

Gapop 10.0 , Gapext 1.0

Searched: 1202784 seqs, 818138359 residues

Total number of hits satisfying chosen parameters: 2405568

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : Issued Patents NA.\*

1: /cgn2\_6/prodata/1/ina/5A-COMB.seq.\*

2: /cgn2\_6/prodata/1/ina/5B-COMB.seq.\*

3: /cgn2\_6/prodata/1/ina/6A-COMB.seq.\*

4: /cgn2\_6/prodata/1/ina/6B-COMB.seq.\*

5: /cgn2\_6/prodata/1/ina/PCTUS-COMB.seq.\*

6: /cgn2\_6/prodata/1/ina/backfile1.seq.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

| Result No. | Score | Query Match | Length | ID | Description        |
|------------|-------|-------------|--------|----|--------------------|
| 1          | 462   | 92.4        | 1905   | 1  | US-08-594-469-9    |
| 2          | 462   | 92.4        | 1905   | 2  | US-08-906-957-9    |
| 3          | 462   | 92.4        | 2320   | 3  | US-09-202-904A-13  |
| 4          | 462   | 92.4        | 3003   | 6  | 5182260-18         |
| 5          | 462   | 92.4        | 3003   | 6  | 5182260-18         |
| 6          | 462   | 92.4        | 3122   | 3  | US-09-042-353-152  |
| 7          | 462   | 92.4        | 3122   | 3  | US-08-758-417A-416 |
| 8          | 462   | 92.4        | 3418   | 2  | US-08-944-916-12   |
| 9          | 462   | 92.4        | 3516   | 3  | US-09-058-483-9    |
| 10         | 462   | 92.4        | 3656   | 1  | US-08-232-463-8    |
| 11         | 462   | 92.4        | 3698   | 1  | US-08-232-463-9    |
| 12         | 462   | 92.4        | 3698   | 1  | US-07-834-539A-49  |
| 13         | 462   | 92.4        | 3698   | 2  | US-08-800-353-49   |
| 14         | 462   | 92.4        | 3698   | 5  | PCT-US92-06185-49  |
| 15         | 462   | 92.4        | 3699   | 1  | US-08-053-131-120  |
| 16         | 462   | 92.4        | 3699   | 1  | US-08-645-641-120  |
| 17         | 462   | 92.4        | 3699   | 1  | US-07-853-408B-120 |
| 18         | 462   | 92.4        | 3699   | 1  | US-08-096-762-120  |
| 19         | 462   | 92.4        | 3699   | 2  | US-08-308-865-120  |
| 20         | 462   | 92.4        | 3699   | 5  | PCT-US92-10983-120 |
| 21         | 462   | 92.4        | 3754   | 4  | US-08-586-740A-6   |
| 22         | 462   | 92.4        | 3754   | 4  | US-08-379-611-17   |
| 23         | 462   | 92.4        | 3769   | 4  | US-08-379-611-18   |
| 24         | 462   | 92.4        | 3803   | 1  | US-07-623-953-1    |
| 25         | 462   | 92.4        | 3803   | 1  | US-07-640-476-1    |
| 26         | 462   | 92.4        | 3878   | 3  | US-08-651-472-65   |
| 27         | 462   | 92.4        | 3878   | 3  | US-08-358-928-65   |

|    |     |      |      |   |                   |                    |
|----|-----|------|------|---|-------------------|--------------------|
| 28 | 462 | 92.4 | 4023 | 4 | US-08-809-513A-8  | Sequence 8, Appli  |
| 29 | 462 | 92.4 | 4366 | 4 | US-08-586-740A-12 | Sequence 12, Appli |
| 30 | 462 | 92.4 | 4378 | 4 | US-08-586-740A-9  | Sequence 9, Appli  |
| 31 | 462 | 92.4 | 4410 | 1 | US-08-594-469-1   | Sequence 1, Appli  |
| 32 | 462 | 92.4 | 4410 | 2 | US-08-906-957-1   | Sequence 1, Appli  |
| 33 | 462 | 92.4 | 4490 | 3 | US-09-476-366A-1  | Sequence 1, Appli  |
| 34 | 462 | 92.4 | 4557 | 4 | US-08-778-717-5   | Sequence 5, Appli  |
| 35 | 462 | 92.4 | 4659 | 1 | US-08-232-463-10  | Sequence 10, Appli |
| 36 | 462 | 92.4 | 4701 | 3 | US-08-651-472-64  | Sequence 64, Appli |
| 37 | 462 | 92.4 | 4701 | 3 | US-08-358-928-64  | Sequence 64, Appli |
| 38 | 462 | 92.4 | 4818 | 1 | US-08-232-463-11  | Sequence 11, Appli |
| 39 | 462 | 92.4 | 4819 | 1 | US-08-450-257-20  | Sequence 20, Appli |
| 40 | 462 | 92.4 | 4819 | 1 | US-08-450-246-20  | Sequence 20, Appli |
| 41 | 462 | 92.4 | 4819 | 1 | US-08-451-233-20  | Sequence 20, Appli |
| 42 | 462 | 92.4 | 4819 | 1 | US-08-450-236-20  | Sequence 20, Appli |
| 43 | 462 | 92.4 | 4819 | 3 | US-08-235-403-20  | Sequence 20, Appli |
| 44 | 462 | 92.4 | 4821 | 1 | US-08-232-463-12  | Sequence 12, Appli |
| 45 | 462 | 92.4 | 4821 | 1 | US-08-232-463-12  | Sequence 12, Appli |

ALIGNMENTS

RESULT 1  
US-08-594-469-9  
; Sequence 9, Application US/08594469  
; Patent No. 5700665  
; GENERAL INFORMATION:  
; APPLICANT: LEGOUX, Richard  
; APPLICANT: MALDONADO, Paul  
; TITLE OF INVENTION: Method for the extraction of  
; TITLE OF INVENTION: periplasmic proteins of prokaryotic microorganisms in the  
; TITLE OF INVENTION: presence of arginine  
; NUMBER OF SEQUENCES: 9  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Bacon & Thomas  
; STREET: 625 Slaters Lane - Fourth Floor  
; CITY: Alexandria  
; STATE: Virginia  
; COUNTRY: USA  
; ZIP: 22314  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Floppy disk  
; COMPUTER: IBM PC compatible  
; OPERATING SYSTEM: PC-DOS/MS-DOS  
; SOFTWARE: PatentIn Release #1.0, Version #1.25  
; CURRENT APPLICATION DATA:  
; FILING DATE:  
; CLASSIFICATION: 435  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: FR 95 01083  
; FILING DATE: 31-JAN-1995  
; ATTORNEY/AGENT INFORMATION:  
; NAME: FICHTER, Richard E  
; REGISTRATION NUMBER: 26,382  
; REFERENCE/DOCKET NUMBER: REF/LEGOUX  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: (703) 683-0500  
; TELEFAX: (703) 683-1080  
; INFORMATION FOR SEQ ID NO: 9:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 1905 base pairs  
; TYPE: nucleic acid  
; STRANDEDNESS: single  
; TOPOLOGY: linear  
; MOLECULE TYPE: DNA (genomic)  
US-08-594-469-9

Query Match 92.4%; Score 462; DB 1; Length 1905;  
Best Local Similarity 99.2%; Pred. No. 1.2e-150;  
Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;

QY 1 ATATATGAGTAACTTGGTCTGACAGTTACCAATGCTTAATCACTGAGGACCTATCTCA 60  
Db 817 ATATATGAGTAACTTGGTCTGACAGTTACCAATGCTTAATCACTGAGGACCTATCTCA 876  
QY 61 GCGATCTGTCTATTTCGTTTCATCCATAGTTGCTGCAACTCCCGGTCGTGTAGATAACT 120  
Db 877 GCGATCTGTCTATTTCGTTTCATCCATAGTTGCTGCAACTCCCGGTCGTGTAGATAACT 933  
QY 121 ACGATACGGAGGGCTTACCATCTGGCCCGCAGTGTGCAATGATACCGGAAGCCACG 180  
Db 934 ACGATACGGAGGGCTTACCATCTGGCCCGCAGTGTGCAATGATACCGG-AGACCCACG 992  
QY 181 CTCACGGCTCCAGATTATCAGCAATAAACCCAGCCAGCGGAGGCGGAGCGCAGAA 240  
Db 993 CTCACGGCTCCAGATTATCAGCAATAAACCCAGCCAGCGGAGGCGGAGCGCAGAA 1052  
QY 241 TGGTCTGCAACTTTATCCGCTCCATCCAGTCTTATTAATTGTTGCCGGAAGCTAGAGT 300  
Db 1053 TGGTCTGCAACTTTATCCGCTCCATCCAGTCTTATTAATTGTTGCCGGAAGCTAGAGT 1112  
QY 301 AAGTAGTTCGCCAGTTAATAGTTGGCAACGTTGTCATTCAGTCCCGGTTCCCAAGATCAAGGCGAGT 420  
Db 1113 AAGTAGTTCGCCAGTTAATAGTTGGCAACGTTGTCATTCAGTCCCGGTTCCCAAGATCAAGGCGAGT 1232  
QY 421 TACATGATCCCCCATGTTGTGCAAAAAAGCGGTAGTCTCTCGGTCCTCCGATCGTTGT 480  
Db 1233 TACATGATCCCCCATGTTGTGCAAAAAAGCGGTAGTCTCTCGGTCCTCCGATCGTTGT 1292  
QY 481 CAGAAGTAAGTTGCCCGCAG 500  
Db 1293 CAGAAGTAAGTTGCCCGCAG 1312

## RESULT 2

US-08-906-957-9  
; Sequence 9, Application US/08906957  
; Patent No. 5856142  
; GENERAL INFORMATION:  
; APPLICANT: LEGOUX, Richard  
; APPLICANT: MALDONADO, Paul  
; APPLICANT: SALOME, Marc  
; TITLE OF INVENTION: Method for the extraction of  
; TITLE OF INVENTION: periplasmic proteins of prokaryotic microorganisms in the  
; TITLE OF INVENTION: presence of arginine  
; NUMBER OF SEQUENCES: 9  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Bacon & Thomas  
; STREET: 625 Slaters Lane - Fourth Floor  
; CITY: Alexandria  
; STATE: Virginia  
; COUNTRY: USA  
; ZIP: 22314  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Floppy disk  
; COMPUTER: IBM PC compatible  
; OPERATING SYSTEM: PC-DOS/MS-DOS  
; SOFTWARE: Patent in Release #1.0, Version #1.25  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/08/906,957  
; FILING DATE: 06-AUG-1997  
; CLASSIFICATION: 435  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: 08/594,469  
; FILING DATE:  
; APPLICATION NUMBER: FR 95 01083  
; FILING DATE: 31-JAN-1995  
; ATTORNEY/AGENT INFORMATION:  
; NAME: FICHTER, Richard E

; REGISTRATION NUMBER: 26,382  
; REFERENCE/DOCKET NUMBER: REF/LEGOUX  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: (703) 683-0500  
; TELEFAX: (703) 683-1080  
; INFORMATION FOR SEQ ID NO: 9:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 1905 base pairs  
; TYPE: nucleic acid  
; STRANDEDNESS: single  
; TOPOLOGY: linear  
; MOLECULE TYPE: DNA (genomic)  
; US-08-906-957-9

Query Match 92.4%; Score 462; DB 2; Length 1905;

Best Local Similarity 99.2%; Pred. No. 1.2e-150;

Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;

QY 1 ATATATGAGTAACTTGGTCTGACAGTTACCAATGCTTAATCACTGAGGACCTATCTCA 60  
Db 817 ATATATGAGTAACTTGGTCTGACAGTTACCAATGCTTAATCACTGAGGACCTATCTCA 876  
QY 61 GCGATCTGTCTATTTCGTTTCATCCATAGTTGCTGCAACTCCCGGTCGTGTAGATAACT 120  
Db 877 GCGATCTGTCTATTTCGTTTCATCCATAGTTGCTGCAACTCCCGGTCGTGTAGATAACT 933  
QY 121 ACGATACGGAGGGCTTACCATCTGGCCCGCAGTGTGCAATGATACCGGAAGCCACG 180  
Db 934 ACGATACGGAGGGCTTACCATCTGGCCCGCAGTGTGCAATGATACCGG-AGACCCACG 992  
QY 181 CTCACGGCTCCAGATTATCAGCAATAAACCCAGCCAGCGGAGGCGGAGCGCAGAA 240  
Db 993 CTCACGGCTCCAGATTATCAGCAATAAACCCAGCCAGCGGAGGCGGAGCGCAGAA 1052  
QY 241 TGGTCTGCAACTTTATCCGCTCCATCCAGTCTTATTAATTGTTGCCGGAAGCTAGAGT 300  
Db 1053 TGGTCTGCAACTTTATCCGCTCCATCCAGTCTTATTAATTGTTGCCGGAAGCTAGAGT 1112  
QY 301 AAGTAGTTCGCCAGTTAATAGTTGGCAACGTTGTCATTCAGTCCCGGTTCCCAAGATCAAGGCGAGT 420  
Db 1113 AAGTAGTTCGCCAGTTAATAGTTGGCAACGTTGTCATTCAGTCCCGGTTCCCAAGATCAAGGCGAGT 1232  
QY 421 TACATGATCCCCCATGTTGTGCAAAAAAGCGGTAGTCTCTCGGTCCTCCGATCGTTGT 480  
Db 1233 TACATGATCCCCCATGTTGTGCAAAAAAGCGGTAGTCTCTCGGTCCTCCGATCGTTGT 1292  
QY 481 CAGAAGTAAGTTGCCCGCAG 500  
Db 1293 CAGAAGTAAGTTGCCCGCAG 1312

## RESULT 3

US-09-202-904A-13/c  
; Sequence 13, Application US/09202904A  
; Patent No. 6395471  
; GENERAL INFORMATION:  
; APPLICANT: Kang, Sung Key  
; APPLICANT: Hahn, Bumsuk  
; TITLE OF INVENTION: Hepatitis C Surrogate Virus for Testing  
; TITLE OF INVENTION: the Activity of Hepatitis C Virus Protease, a Recombinant  
; TITLE OF INVENTION: Gene and a Use Thereof  
; FILE REFERENCE: A32210-PCT-USA 072944.0104  
; CURRENT APPLICATION NUMBER: US/09/202,904A  
; PRIOR FILING DATE: 2001-01-22  
; PRIOR APPLICATION NUMBER: PCT/KR97/00120  
; NUMBER OF SEQ ID NOS: 14  
; SOFTWARE: FastSeq for Windows Version 3.0  
; SEQ ID NO 13

; LENGTH: 2320  
; TYPE: DNA  
; ORGANISM: Artificial Sequence  
; FEATURE:  
; OTHER INFORMATION: Genetically engineered virus derived from  
; OTHER INFORMATION: poliovirus and hepatitis C virus  
US-09-202-904A-13

Query Match 92.4%; Score 462; DB 3; Length 2320;  
Best Local Similarity 99.2%; Pred. No. 1.3e-150;  
Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;

Qy 1 ATATATGAGTAAACTTGGCTGACAGTTACCAATGCTTAATCAGTAGGAGCACCTATCTCA 60  
Db 2277 ATATATGAGTAAACTTGGCTGACAGTTACCAATGCTTAATCAGTAGGAGCACCTATCTCA 2218  
Qy 61 GCGATCTGCTATTTTCGTTTCATCCAGTAGTGCCTGCAACTCCCGTCGCTGAGATAA 120  
Db 2217 GCGATCTGCTATTTTCGTTTCAT--CCATAGTTGCGCTG--ACTCCCGTCGCTGAGATAA 2161  
Qy 121 ACGATACGGGAGGGCTTACCATCTGGCCCCAGTGTGCAATGATACCGCGAAGACCCACG 180  
Db 2160 ACGATACGGGAGGGCTTACCATCTGGCCCCAGTGTGCAATGATACCGCG--AGACCCACG 2102  
Qy 181 CTCACCGGCTCCAGATTTATCAGCAATAAACACGAGCCGAGGAGGCGCGAGAAG 240  
Db 2101 CTCACCGGCTCCAGATTTATCAGCAATAAACACGAGCCGAGGAGGCGCGAGAAG 2042  
Qy 241 TGGTCTCTGCAACTTTATCCGCTCCATCCAGTCTATTAATTTGTTGCCGGAAGCTAGAGT 300  
Db 2041 TGGTCTCTGCAACTTTATCCGCTCCATCCAGTCTATTAATTTGTTGCCGGAAGCTAGAGT 1982  
Qy 301 AAGTAGTTCCGCAAGTTAATAGTTTGGCAACAGTTGTTGCCATTTGCTGCAGGCATCGTGGT 360  
Db 1981 AAGTAGTTCCGCAAGTTAATAGTTTGGCAACAGTTGTTGCCATTTGCTGCAGGCATCGTGGT 1922  
Qy 361 GTCACGCTCGCTGTTGGTATGCTTCATTCAGTCCGGTTCCTCCAAACGATCAAGGCGAGT 420  
Db 1921 GTCACGCTCGCTGTTGGTATGCTTCATTCAGTCCGGTTCCTCCAAACGATCAAGGCGAGT 1862  
Qy 421 TACATGATCCCCATGTTGTGCAAAAAGCGGTTAGCTCCTTCGGTCCCTCCGATCGTTGT 480  
Db 1861 TACATGATCCCCATGTTGTGCAAAAAGCGGTTAGCTCCTTCGGTCCCTCCGATCGTTGT 1802  
Qy 481 CAGAAGTAAGTTGGCCGCGAG 500  
Db 1801 CAGAAGTAAGTTGGCCGCGAG 1782

RESULT 4  
5182260-18  
; Patent No. 5182260  
; APPLICANT: MARAGANORE, JOHN M.; JAKUBOWSKI, JOSEPH A.  
; TITLE OF INVENTION: DNA SEQUENCES ENCODING SNAKE VENOM  
; INHIBITORS OF PLATELET ACTIVATION PROCESSES FOR PRODUCING  
; THOSE INHIBITORS AND COMPOSITIONS USING THEM  
; NUMBER OF SEQUENCES: 22  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/08/430,313  
; FILING DATE: 01-NOV-1989  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: 303,585  
; FILING DATE: 27-JAN-1989  
; APPLICATION NUMBER: 303,590  
; FILING DATE: 27-JAN-1989  
; SEQ ID NO: 18:  
; LENGTH: 3003  
5182260-18

\* Query Match 92.4%; Score 462; DB 6; Length 3003;  
Best Local Similarity 99.2%; Pred. No. 1.5e-150;  
Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;

Qy 1 ATATATGAGTAAACTTGGCTGACAGTTACCAATGCTTAATCAGTAGGAGCACCTATCTCA 60  
Db 1506 ATATATGAGTAAACTTGGCTGACAGTTACCAATGCTTAATCAGTAGGAGCACCTATCTCA 1565  
Qy 61 GCGATCTGCTATTTTCGTTTCATCCAGTAGTGCCTGCAACTCCCGTCGCTGAGATAA 120  
Db 1566 GCGATCTGCTATTTTCGTTTCAT--CCATAGTTGCGCTG--ACTCCCGTCGCTGAGATAA 1622  
Qy 121 ACGATACGGGAGGGCTTACCATCTGGCCCCAGTGTGCAATGATACCGCGAAGACCCACG 180  
Db 1623 ACGATACGGGAGGGCTTACCATCTGGCCCCAGTGTGCAATGATACCGCG--AGACCCACG 1681  
Qy 181 CTCACCGGCTCCAGATTTATCAGCAATAAACACGAGCCGAGGAGGCGCGAGAAG 240  
Db 1682 CTCACCGGCTCCAGATTTATCAGCAATAAACACGAGCCGAGGAGGCGCGAGAAG 1741  
Qy 241 TGGTCTCTGCAACTTTATCCGCTCCATCCAGTCTATTAATTTGTTGCCGGAAGCTAGAGT 300  
Db 1742 TGGTCTCTGCAACTTTATCCGCTCCATCCAGTCTATTAATTTGTTGCCGGAAGCTAGAGT 1801  
Qy 301 AAGTAGTTCCGCAAGTTAATAGTTTGGCAACAGTTGTTGCCATTTGCTGCAGGCATCGTGGT 360  
Db 1802 AAGTAGTTCCGCAAGTTAATAGTTTGGCAACAGTTGTTGCCATTTGCTGCAGGCATCGTGGT 1861  
Qy 361 GTCACGCTCGCTGTTGGTATGCTTCATTCAGTCCGGTTCCTCCAAACGATCAAGGCGAGT 420  
Db 1862 GTCACGCTCGCTGTTGGTATGCTTCATTCAGTCCGGTTCCTCCAAACGATCAAGGCGAGT 1921  
Qy 421 TACATGATCCCCATGTTGTGCAAAAAGCGGTTAGCTCCTTCGGTCCCTCCGATCGTTGT 480  
Db 1922 TACATGATCCCCATGTTGTGCAAAAAGCGGTTAGCTCCTTCGGTCCCTCCGATCGTTGT 1981  
Qy 481 CAGAAGTAAGTTGGCCGCGAG 500  
Db 1982 CAGAAGTAAGTTGGCCGCGAG 2001

RESULT 5  
5182260-18  
; Patent No. 5182260  
; APPLICANT: MARAGANORE, JOHN M.; JAKUBOWSKI, JOSEPH A.  
; TITLE OF INVENTION: DNA SEQUENCES ENCODING SNAKE VENOM  
; INHIBITORS OF PLATELET ACTIVATION PROCESSES FOR PRODUCING  
; THOSE INHIBITORS AND COMPOSITIONS USING THEM  
; NUMBER OF SEQUENCES: 22  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/08/430,313  
; FILING DATE: 01-NOV-1989  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: 303,585  
; FILING DATE: 27-JAN-1989  
; APPLICATION NUMBER: 303,590  
; FILING DATE: 27-JAN-1989  
; SEQ ID NO: 18:  
; LENGTH: 3003  
5182260-18

Query Match 92.4%; Score 462; DB 6; Length 3003;  
Best Local Similarity 99.2%; Pred. No. 1.5e-150;  
Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;  
Qy 1 ATATATGAGTAAACTTGGCTGACAGTTACCAATGCTTAATCAGTAGGAGCACCTATCTCA 60  
Db 1506 ATATATGAGTAAACTTGGCTGACAGTTACCAATGCTTAATCAGTAGGAGCACCTATCTCA 1565  
Qy 61 GCGATCTGCTATTTTCGTTTCATCCAGTAGTGCCTGCAACTCCCGTCGCTGAGATAA 120  
Db 1566 GCGATCTGCTATTTTCGTTTCAT--CCATAGTTGCGCTG--ACTCCCGTCGCTGAGATAA 1622  
Qy 121 ACGATACGGGAGGGCTTACCATCTGGCCCCAGTGTGCAATGATACCGCGAAGACCCACG 180  
Db 1623 ACGATACGGGAGGGCTTACCATCTGGCCCCAGTGTGCAATGATACCGCG--AGACCCACG 1681



QY 421 TACATGATCCCCCATGTTGTGCAAAAAGCGGTTAGCTCCTTCGGTCTCCGATCGTTGT 480  
 Db 2446 TACATGATCCCCCATGTTGTGCAAAAAGCGGTTAGCTCCTTCGGTCTCCGATCGTTGT 2505  
 QY 481 CAGAAAGTAAGTTGGCCGCGAG 500  
 Db 2506 CAGAAAGTAAGTTGGCCGCGAG 2525

RESULT 7

US-08-758-417A-416  
 ; Sequence 416, Application US/08758417A  
 ; Patent No. 6300129  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Lonberg, Nils  
 ; Kay, Robert M.  
 ; TITLE OF INVENTION: Transgenic No. 6300129-Human Animals for  
 ; Producing Heterologous Antibodies

NUMBER OF SEQUENCES: 417  
 CORRESPONDENCE ADDRESS:  
 ADDRESSEE: Townsend and Townsend and Crew LLP  
 STREET: Two Embarcadero Center, Eighth Floor  
 CITY: San Francisco  
 STATE: California  
 COUNTRY: USA  
 ZIP: 94111-3834

COMPUTER READABLE FORM:  
 MEDIUM TYPE: Floppy disk  
 COMPUTER: IBM PC compatible  
 OPERATING SYSTEM: PC-DOS/MS-DOS  
 SOFTWARE: Patent in Release #1.0, Version #1.30  
 CURRENT APPLICATION DATA:  
 APPLICATION NUMBER: US/08/758,417A  
 FILING DATE: 02-Dec-1996  
 CLASSIFICATION: <Unknown>  
 PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 08/728,463  
 FILING DATE: 10-OCT-1996  
 APPLICATION NUMBER: US 08/544,404  
 FILING DATE: 10-OCT-1995  
 APPLICATION NUMBER: US 08/352,322  
 FILING DATE: 07-DEC-1994  
 APPLICATION NUMBER: US 08/209,741  
 FILING DATE: 09-MAR-1994  
 APPLICATION NUMBER: US 08/165,699  
 FILING DATE: 10-DEC-1993  
 APPLICATION NUMBER: US 08/161,739  
 FILING DATE: 03-DEC-1993  
 APPLICATION NUMBER: US 08/155,301  
 FILING DATE: 18-NOV-1993  
 APPLICATION NUMBER: US 08/096,762  
 FILING DATE: 22-JUL-1993  
 APPLICATION NUMBER: US 08/053,131  
 FILING DATE: 26-APR-1993  
 APPLICATION NUMBER: US 07/990,860  
 FILING DATE: 16-DEC-1992  
 ATTORNEY/AGENT INFORMATION:  
 NAME: Serafini, Andrew T.  
 REGISTRATION NUMBER: 41,303  
 REFERENCE/DOCKET NUMBER: 014643-009030US

TELECOMMUNICATION INFORMATION:  
 TELEPHONE: (415) 576-0200  
 TELEFAX: (415) 576-0300  
 INFORMATION FOR SEQ ID NO: 416:  
 SEQUENCE CHARACTERISTICS:  
 LENGTH: 3122 base pairs  
 TYPE: nucleic acid  
 STRANDEDNESS: single  
 TOPOLOGY: linear

MOLECULE TYPE: DNA  
 \* SEQUENCE DESCRIPTION: SEQ ID NO: 416:  
 US-08-758-417A-416

Query Match 92.4%; Score 462; DB 3; Length 3122;  
 Best Local Similarity 99.2%; Pred. No. 1.5e-150;  
 Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;  
 QY 1 ATATATAGTAACCTTGGTCTGACAGTTACCAATGCTTAATCAGTAGGACCACTATCTCA 60  
 Db 2030 ATATATAGTAACCTTGGTCTGACAGTTACCAATGCTTAATCAGTAGGACCACTATCTCA 2089  
 QY 61 GCATCTGTCTATTTCGTTTCATCCCATAGTTGCTGCAACTCCCGCTCGGTAGATAA 120  
 Db 2090 GCATCTGTCTATTTCGTTTCAT--CAATAGTTGCTG--ACTCCCGCTCGGTAGATAA 2146  
 QY 121 ACGATACGGGAGGGCTTACCATCTGCCCCCAGTGTGCAATGATACCGGAAAGACCCACG 180  
 Db 2147 ACGATACGGGAGGGCTTACCATCTGCCCCCAGTGTGCAATGATACCGG--AGACCCACG 2205  
 QY 181 CTCACCGGCTCCAGATTATCAGCAATAAACCCAGCCGCGGAGGCGGAGGCGAGNAG 240  
 Db 2206 CTCACCGGCTCCAGATTATCAGCAATAAACCCAGCCGCGGAGGCGGAGGCGAGNAG 2265  
 QY 241 TGGTCTCTGCAACTTTATCCGCTCCATCCAGTCTATTAAATTTGTCGGGAAAGCTAGAGT 300  
 Db 2266 TGGTCTCTGCAACTTTATCCGCTCCATCCAGTCTATTAAATTTGTCGGGAAAGCTAGAGT 2325  
 QY 301 AAGTAGTTCCGCCAGTTAATAGTTTGGCAACGTTGTTGCCATTGCTGCAGGCATCGTGT 360  
 Db 2326 AAGTAGTTCCGCCAGTTAATAGTTTGGCAACGTTGTTGCCATTGCTGCAGGCATCGTGT 2385  
 QY 361 CTCACGCTCGTGTGTTGGTATGCTTCATTACGCTCCGGTCCCAACGATCAAGGCGAGT 420  
 Db 2386 GTCACGCTCGTGTGTTGGTATGCTTCATTACGCTCCGGTCCCAACGATCAAGGCGAGT 2445  
 QY 421 TACATGATCCCCATGTTGTGCAAAAAGCGGTTAGCTCCTTCGGTCTCCCGATCGTTGT 480  
 Db 2446 TACATGATCCCCATGTTGTGCAAAAAGCGGTTAGCTCCTTCGGTCTCCCGATCGTTGT 2505  
 QY 481 CAGAAAGTAAGTTGGCCGCGAG 500  
 Db 2506 CAGAAAGTAAGTTGGCCGCGAG 2525

RESULT 8

US-08-944-916-12  
 ; Sequence 12, Application US/08944916  
 ; Patent No. 5948622  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Reznikoff, William S  
 ; APPLICANT: Goryshin, Igor Y  
 ; APPLICANT: York, Dona L  
 ; APPLICANT: Zhou, Hong  
 ; TITLE OF INVENTION: System for In Vitro Transposition  
 ; NUMBER OF SEQUENCES: 13  
 ; CORRESPONDENCE ADDRESS:  
 ; ADDRESSEE: Quarles & Brady  
 ; STREET: 1 South Pinckney Street  
 ; CITY: Madison  
 ; STATE: WI  
 ; COUNTRY: USA  
 ; ZIP: 53703  
 ; COMPUTER READABLE FORM:  
 ; MEDIUM TYPE: Floppy disk  
 ; COMPUTER: IBM PC compatible  
 ; OPERATING SYSTEM: PC-DOS/MS-DOS  
 ; SOFTWARE: Patent in Release #1.0, Version #1.30  
 ; CURRENT APPLICATION DATA:  
 ; APPLICATION NUMBER: US/08/944,916  
 ; FILING DATE:  
 ; CLASSIFICATION: 435  
 ; PRIOR APPLICATION DATA:  
 ; APPLICATION NUMBER: US 08/814,877  
 ; FILING DATE: 09-SEP-1996  
 ; PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 08/850,880  
FILING DATE: 02-MAY-1997  
ATTORNEY/AGENT INFORMATION:  
NAME: Berson, Bennett J.  
REGISTRATION NUMBER: 37094  
REFERENCE/DOCKET NUMBER: 960296.94916  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: 608/251-5000  
TELEFAX: 608-251-9166  
INFORMATION FOR SEQ ID NO: 12:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 3418 base pairs  
TYPE: nucleic acid  
STRANDEDNESS: double  
TOPOLOGY: circular  
MOLECULE TYPE: other nucleic acid  
DESCRIPTION: /desc = "Plasmid pr7075"  
US-08-944-916-12

Query Match 92.4%; Score 462; DB 2; Length 3418;  
Best Local Similarity 99.2%; Pred. No. 1.6e-150; Indels 4; Gaps 3;  
Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;  
QY 1 ATATATGAGTAACTTGGTCTGACAGTTACCAATGCTTAATCAGTGAGGACCACTATCTCA 60  
DB 2326 ATATATGAGTAACTTGGTCTGACAGTTACCAATGCTTAATCAGTGAGGACCACTATCTCA 2385  
QY 61 GCATCTGCTCTATTTCGTTCCATCCCATAGTTCCTGCAACTCCCGCTCGTGTAGATAACT 120  
DB 2386 GCATCTGCTCTATTTCGTTCCAT--CCATAGTTGCTG--ACTCCCGCTCGTGTAGATAACT 2442  
QY 121 ACATACGGGAGGGCTTACCATCTGGCCCCCAGTGTGCAATGATACCGCGAAGACCCACG 180  
DB 2443 ACATACGGGAGGGCTTACCATCTGGCCCCCAGTGTGCAATGATACCGG--AGACCCACG 2501  
QY 181 CTCACGGCTCCAGATTTATCAGCAATAAACAGCCAGCCGGAAGGCGGAGCGCAGAAG 240  
DB 2502 CTCACGGCTCCAGATTTATCAGCAATAAACAGCCAGCCGGAAGGCGGAGCGCAGAAG 2561  
QY 241 TGGTCTCTGCAACTTTATCCGCTCCATCCAGTCTATTATTTGTTCCGGGAGCTAGAGT 300  
DB 2562 TGGTCTCTGCAACTTTATCCGCTCCATCCAGTCTATTATTTGTTCCGGGAGCTAGAGT 2621  
QY 301 AAGTAGTTCGCCAGTTAATAGTTTGGCAACGTTGTGGCAATGCTGTCAGGCACTCGTGT 360  
DB 2622 AAGTAGTTCGCCAGTTAATAGTTTGGCAACGTTGTGGCAATGCTGTCAGGCACTCGTGT 2681  
QY 361 GTCACGCTCGTGTGGTATGCTTCATTCAGTCCGGTTCCTCCACGATCAAGGCGAGT 420  
DB 2682 GTCACGCTCGTGTGGTATGCTTCATTCAGTCCGGTTCCTCCACGATCAAGGCGAGT 2741  
QY 421 TACATGATCCCCCATGTTGTGCAAAAAGCGTTAGTCTCTTCGGTCTCCGATCGTTGT 480  
DB 2742 TACATGATCCCCCATGTTGTGCAAAAAGCGTTAGTCTCTTCGGTCTCCGATCGTTGT 2801  
QY 481 CAGAAGTAAGTTGGCGCGAG 500  
DB 2802 CAGAAGTAAGTTGGCGCGAG 2821

RESULT 9  
US-09-058-483-9  
Sequence 9, Application US/09058483A  
Patent No. 6365347  
GENERAL INFORMATION:  
APPLICANT: Murray, Andrew W.  
APPLICANT: Smith, Dana L.  
APPLICANT: Sorger, Peter K.  
APPLICANT: No. 6365347man, Thea C.  
TITLE OF INVENTION: METHODS FOR IDENTIFYING DISRUPTORS OF BIOLOGICAL  
FILE REFERENCE: 30432.1US11  
CURRENT APPLICATION NUMBER: US/09/058,483A

CURRENT FILING DATE: 1998-04-10  
EARLIER APPLICATION NUMBER: 08/835,727  
EARLIER FILING DATE: 1997-04-11  
NUMBER OF SEQ ID NOS: 18  
SOFTWARE: PatentIn Ver. 2.0  
SEQ ID NO 9  
LENGTH: 3516  
TYPE: DNA  
ORGANISM: nucleic acid sequence of PSF248 plasmid  
US-09-058-483-9

Query Match 92.4%; Score 462; DB 3; Length 3516;  
Best Local Similarity 99.2%; Pred. No. 1.6e-150; Indels 4; Gaps 3;  
Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;  
QY 1 ATATATGAGTAACTTGGTCTGACAGTTACCAATGCTTAATCAGTGAGGACCACTATCTCA 60  
DB 2425 ATATATGAGTAACTTGGTCTGACAGTTACCAATGCTTAATCAGTGAGGACCACTATCTCA 2484  
QY 61 GCATCTGCTCTATTTCGTTCCATCCCATAGTTCCTGCAACTCCCGCTCGTGTAGATAACT 120  
DB 2485 GCATCTGCTCTATTTCGTTCCAT--CCATAGTTGCTG--ACTCCCGCTCGTGTAGATAACT 2541  
QY 121 ACATACGGGAGGGCTTACCATCTGGCCCCCAGTGTGCAATGATACCGCGAAGACCCACG 180  
DB 2542 ACATACGGGAGGGCTTACCATCTGGCCCCCAGTGTGCAATGATACCGG--AGACCCACG 2600  
QY 181 CTCACGGCTCCAGATTTATCAGCAATAAACAGCCAGCCGGAAGGCGGAGCGCAGAAG 240  
DB 2601 CTCACGGCTCCAGATTTATCAGCAATAAACAGCCAGCCGGAAGGCGGAGCGCAGAAG 2660  
QY 241 TGGTCTCTGCAACTTTATCCGCTCCATCCAGTCTATTATTTGTTCCGGGAGCTAGAGT 300  
DB 2661 TGGTCTCTGCAACTTTATCCGCTCCATCCAGTCTATTATTTGTTCCGGGAGCTAGAGT 2720  
QY 301 AAGTAGTTCGCCAGTTAATAGTTTGGCAACGTTGTGGCAATGCTGTCAGGCACTCGTGT 360  
DB 2721 AAGTAGTTCGCCAGTTAATAGTTTGGCAACGTTGTGGCAATGCTGTCAGGCACTCGTGT 2780  
QY 361 GTCACGCTCGTGTGGTATGCTTCATTCAGTCCGGTTCCTCCACGATCAAGGCGAGT 420  
DB 2781 GTCACGCTCGTGTGGTATGCTTCATTCAGTCCGGTTCCTCCACGATCAAGGCGAGT 2840  
QY 421 TACATGATCCCCCATGTTGTGCAAAAAGCGTTAGTCTCTTCGGTCTCCGATCGTTGT 480  
DB 2841 TACATGATCCCCCATGTTGTGCAAAAAGCGTTAGTCTCTTCGGTCTCCGATCGTTGT 2900  
QY 481 CAGAAGTAAGTTGGCGCGAG 500  
DB 2901 CAGAAGTAAGTTGGCGCGAG 2920

RESULT 10  
US-08-232-463-8/c  
Sequence 8, Application US/08232463  
Patent No. 5670367  
GENERAL INFORMATION:  
APPLICANT: DORNER, F.  
APPLICANT: SCHEIFLINGER, F.  
APPLICANT: FALKNER, F. G.  
TITLE OF INVENTION: RECOMBINANT FOWLPOX VIRUS  
NUMBER OF SEQUENCES: 52  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Foley & Lardner  
STREET: 1800 Diagonal Road, Suite 500  
CITY: Alexandria  
STATE: VA  
COUNTRY: USA  
ZIP: 22313-0299  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS



```
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/232,463
FILING DATE:
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/07/935,313
FILING DATE:
APPLICATION NUMBER: EP 91 114 300.6
FILING DATE: 26-AUG-1991
ATTORNEY/AGENT INFORMATION:
NAME: BENT, Stephen A.
REGISTRATION NUMBER: 29,768
REFERENCE/DOCKET NUMBER: 30472/114 IMMU
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703)836-9300
TELEFAX: (703)683-4109
TELEX: 899149
INFORMATION FOR SEQ ID NO: 8:
SEQUENCE CHARACTERISTICS:
LENGTH: 3656 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
IMMEDIATE SOURCE:
CLONE: pFS50
US-08-232-463-8

Query Match          92.4%; Score 462; DB 1; Length 3656;
Best Local Similarity 99.2%; Pred. No. 1.7e-150;
Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;

QY      1 ATATATGAGTAAACTTGGTCTGACAGTTACCAATGCTTAATCAGTAGGCGACCTATCTCA 60
DB      2742 ATATATGAGTAAACTTGGTCTGACAGTTACCAATGCTTAATCAGTAGGCGACCTATCTCA 2683

QY      61 GCGATCTGTCTATTTTCGTTCAATCCCATAGTTGCTGCAACTCCCGTCTGTGTAGATAACT 120
DB      2682 GCGATCTGTCTATTTTCGTTCAATCCCATAGTTGCTGCAACTCCCGTCTGTGTAGATAACT 2626

QY      121 ACGATACGGAGGGCTTACCATCTGCGCCCGAGTCTGCAATGATACGGCGAGACCCAG 180
DB      2625 ACGATACGGAGGGCTTACCATCTGCGCCCGAGTCTGCAATGATACGGCGAGACCCAG 2567

QY      181 CTCACCGGCTCCAGATTTATCAGCAATAAACACGAGCGGAGCGGCGAGGCGCAGAAG 240
DB      2566 CTCACCGGCTCCAGATTTATCAGCAATAAACACGAGCGGAGCGGCGAGGCGCAGAAG 2507

QY      241 TGGTCTCTGCAACTTTATCCGCTCCCATCCAGTCTATTAATTTGTCGGGGAAGCTAGAGT 300
DB      2506 TGGTCTCTGCAACTTTATCCGCTCCCATCCAGTCTATTAATTTGTCGGGGAAGCTAGAGT 2447

QY      301 AAGTAGTTCGCGAGTTAATAGTTTGGCAACGTTTGGCAATGCTGCGGCAATCGTGT 360
DB      2446 AAGTAGTTCGCGAGTTAATAGTTTGGCAACGTTTGGCAATGCTGCGGCAATCGTGT 2387

QY      361 GTCACGCTCGTCTGTTGATGCTTCATTCAGTCCGCTCCGCTTCCCAACGATCAAGGCGAGT 420
DB      2386 GTCACGCTCGTCTGTTGATGCTTCATTCAGTCCGCTCCGCTTCCCAACGATCAAGGCGAGT 2327

QY      421 TACATGATCCCCCATGTTGTGCAAAAAGCGGTAGTCTCTTCGCTCCGATCGTGT 480
DB      2326 TACATGATCCCCCATGTTGTGCAAAAAGCGGTAGTCTCTTCGCTCCGATCGTGT 2267

QY      481 CAGAGTAAAGTTGGCCCGCAG 500
DB      2266 CAGAGTAAAGTTGGCCCGCAG 2247
```

RESULT 11

US-08-232-463-9/c

; Sequence 9, Application US/08232463

; Patent No. 5670367

```
GENERAL INFORMATION:
APPLICANT: DORNER, F.
APPLICANT: SCHEIFLINGER, F.
APPLICANT: FALKNER, F. G.
TITLE OF INVENTION: RECOMBINANT FOWLPOX VIRUS
NUMBER OF SEQUENCES: 52
CORRESPONDENCE ADDRESS:
ADDRESSEE: Foley & Lardner
STREET: 1800 Diagonal Road, Suite 500
CITY: Alexandria
STATE: VA
COUNTRY: USA
ZIP: 22313-0299
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/232,463
FILING DATE:
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/07/935,313
FILING DATE:
APPLICATION NUMBER: EP 91 114 300.6
FILING DATE: 26-AUG-1991
ATTORNEY/AGENT INFORMATION:
NAME: BENT, Stephen A.
REGISTRATION NUMBER: 29,768
REFERENCE/DOCKET NUMBER: 30472/114 IMMU
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703)836-9300
TELEFAX: (703)683-4109
TELEX: 899149
INFORMATION FOR SEQ ID NO: 9:
SEQUENCE CHARACTERISTICS:
LENGTH: 3688 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
IMMEDIATE SOURCE:
CLONE: pFS51
US-08-232-463-9
```

Query Match 92.4%; Score 462; DB 1; Length 3688;

Best Local Similarity 99.2%; Pred. No. 1.7e-150;

Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;

```
QY      1 ATATATGAGTAAACTTGGTCTGACAGTTACCAATGCTTAATCAGTAGGCGACCTATCTCA 60
DB      2774 ATATATGAGTAAACTTGGTCTGACAGTTACCAATGCTTAATCAGTAGGCGACCTATCTCA 2715

QY      61 GCGATCTGTCTATTTTCGTTCAATCCCATAGTTGCTGCAACTCCCGTCTGTGTAGATAACT 120
DB      2714 GCGATCTGTCTATTTTCGTTCAATCCCATAGTTGCTGCAACTCCCGTCTGTGTAGATAACT 2658

QY      121 ACGATACGGAGGGCTTACCATCTGCGCCCGAGTCTGCAATGATACCGGAGACCCAG 180
DB      2657 ACGATACGGAGGGCTTACCATCTGCGCCCGAGTCTGCAATGATACCGGAGACCCAG 2599

QY      181 CTCACCGGCTCCAGATTTATCAGCAATAAACACGAGCGGAGCGGCGAGGCGCAGAAG 240
DB      2598 CTCACCGGCTCCAGATTTATCAGCAATAAACACGAGCGGAGCGGCGAGGCGCAGAAG 2539

QY      241 TGGTCTCTGCAACTTTATCCGCTCCCATCCAGTCTATTAATTTGTCGGGGAAGCTAGAGT 300
DB      2538 TGGTCTCTGCAACTTTATCCGCTCCCATCCAGTCTATTAATTTGTCGGGGAAGCTAGAGT 2479

QY      301 AAGTAGTTCGCGAGTTAATAGTTTGGCAACGTTTGGCAATGCTGCGGCAATCGTGT 360
DB      2478 AAGTAGTTCGCGAGTTAATAGTTTGGCAACGTTTGGCAATGCTGCGGCAATCGTGT 2419
```

```

QY 361 GTCACGCTCGTGGTTGGTATGGCTTCATTACAGTCCGGTTCCCAAGATCAAGCGAGT 420
Db 2418 GTCACGCTCGTGGTTGGTATGGCTTCATTACAGTCCGGTTCCCAAGATCAAGCGAGT 2359
QY 421 TACATGATCCCAATGTTGTCAAAAGCGGTTAGCTTCTTCGGTCCCTCGATCGTTGT 480
Db 2358 TACATGATCCCAATGTTGTCAAAAGCGGTTAGCTTCTTCGGTCCCTCGATCGTTGT 2299
QY 481 CAGAAGTAAGTTGGCCGCAG 500
Db 2298 CAGAAGTAAGTTGGCCGCAG 2279

RESULT 12
US-07-834-539A-49
; Sequence 49, Application US/07834539A
; GENERAL INFORMATION:
; APPLICANT: Lonberg, Nils
; APPLICANT: Kay, Robert M.
; TITLE OF INVENTION: Transgenic Non-Human Animals Capable of
; TITLE OF INVENTION: Producing Heterologous Antibodies
; NUMBER OF SEQUENCES: 77
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: William M. Smith
; STREET: One Market Plaza, Steuart Tower, Suite 2000
; CITY: San Francisco
; STATE: California
; COUNTRY: USA
; ZIP: 94105
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/07/834,539A
; FILING DATE: 1992-02-05
; CLASSIFICATION:
; ATTORNEY/AGENT INFORMATION:
; NAME: Smith, William M.
; REGISTRATION NUMBER: 30,223
; REFERENCE/DOCKET NUMBER: 14643-5
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 415-543-9600
; TELEFAX: 415-543-5043
; INFORMATION FOR SEQ ID NO: 49:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 3698 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: DNA (genomic)
US-07-834-539A-49

Query Match 92.4%; Score 462; DB 1; Length 3698;
Best Local Similarity 99.2%; Pred. No. 1.7e-150;
Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;

QY 1 ATATATGAGTAACTTGGTCTGACAGTTACCAATGCTTAATCAGTGAGGACCTATCTCA 60
Db 2606 ATATATGAGTAACTTGGTCTGACAGTTACCAATGCTTAATCAGTGAGGACCTATCTCA 2665
QY 61 GCGATCTGTATTTCGTTTCATCCCAATGATGTCGTCGAACTCCCGCTGTGTAGATAACT 120
Db 2666 GCGATCTGTATTTCGTTTCAT--CATAGTTGCTG--ACTCCCGCTGTGTAGATAACT 2722
QY 121 ACATACGGGAGGGCTTACCATCTGCCCCAGTCTGCAATGATACCGGAGACCCAG 180
Db 2723 ACATACGGGAGGGCTTACCATCTGCCCCAGTCTGCAATGATACCGG--AGACCCAG 2781
QY 181 CTCACCGGCTCCAGATTTATCAGCAATAAACCAGCCGAGCGGGAAGGCGGAGCGAGAAG 240
Db 2782 CTCACCGGCTCCAGATTTATCAGCAATAAACCAGCCGAGCGGGAAGGCGGAGCGAGAAG 2841

```

```

QY 241 TGGTCTCGCACTTATCCGCTCCATCCAGTCTATTAATTTGTCGGGAAGCTAGAGT 300
Db 2842 TGGTCTCGCACTTATCCGCTCCATCCAGTCTATTAATTTGTCGGGAAGCTAGAGT 2901
QY 301 AAGTAGTTCGCCAGTTAATAGTTTGGCAACGTTGTTGCCATTGCTGCAGGCATCGTGT 360
Db 2902 AAGTAGTTCGCCAGTTAATAGTTTGGCAACGTTGTTGCCATTGCTGCAGGCATCGTGT 2961
QY 361 GTCACGCTCGTGGTTGGTATGGCTTCATTACAGTCCGGTTCCCAAGATCAAGCGAGT 420
Db 2962 GTCACGCTCGTGGTTGGTATGGCTTCATTACAGTCCGGTTCCCAAGATCAAGCGAGT 3021
QY 421 TACATGATCCCAATGTTGTCAAAAGCGGTTAGCTTCTTCGGTCCCTCGATCGTTGT 480
Db 3022 TACATGATCCCAATGTTGTCAAAAGCGGTTAGCTTCTTCGGTCCCTCGATCGTTGT 3081
QY 481 CAGAAGTAAGTTGGCCGCAG 500
Db 3082 CAGAAGTAAGTTGGCCGCAG 3101

RESULT 13
US-08-800-353-49
; Sequence 49, Application US/08800353
; Patent No. 5874299
; GENERAL INFORMATION:
; APPLICANT: Lonberg, Nils
; APPLICANT: Kay, Robert M.
; TITLE OF INVENTION: Transgenic No. 5874299-Human Animals Capable of
; TITLE OF INVENTION: Producing Heterologous Antibodies
; NUMBER OF SEQUENCES: 77
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: William M. Smith
; STREET: One Market Plaza, Steuart Tower, Suite 2000
; CITY: San Francisco
; STATE: California
; COUNTRY: USA
; ZIP: 94105
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/800,353
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US/07/834,539
; FILING DATE: 1992-02-05
; ATTORNEY/AGENT INFORMATION:
; NAME: Smith, William M.
; REGISTRATION NUMBER: 30,223
; REFERENCE/DOCKET NUMBER: 14643-5
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 415-543-9600
; TELEFAX: 415-543-5043
; INFORMATION FOR SEQ ID NO: 49:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 3698 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: DNA (genomic)
US-08-800-353-49

Query Match 92.4%; Score 462; DB 2; Length 3698;
Best Local Similarity 99.2%; Pred. No. 1.7e-150;
Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;

QY 1 ATATATGAGTAACTTGGTCTGACAGTTACCAATGCTTAATCAGTGAGGACCTATCTCA 60

```

```

Db 2606 ATATATGAGTAACTTGGTCTGACAGTTACCAATGCTTAATCAGTAGGACCTATCTCA 2665
Qy 61 GCATCTGTCTATTTCGTTTCATCCATGAGTTGCTCGCAACTCCCGCGTGTAGATAACT 120
Db 2666 GCGATCTGTCTATTTCGTTTCAT-CCATAGTTGCTG--ACTCCCGTGTGTAGATAACT 2722
Qy 121 ACGNATCGGAGGGCTTACCATCTGGGCCCGACGTCCTGCAATGATACCGCGAAGCCACG 180
Db 2723 ACGNATCGGAGGGCTTACCATCTGGGCCCGACGTCCTGCAATGATACCGCG-AGACCCACG 2781
Qy 181 CTCACCGGCTCCAGATTATCAGCAATAAACCCAGCGAGCGGAGCGCGCAGAAG 240
Db 2782 CTCACCGGCTCCAGATTATCAGCAATAAACCCAGCGAGCGGAGCGCGCAGAAG 2841
Qy 241 TGGTCTGCAACTTTATCGCTTCCATCCAGTCTATTAATTTGTCGCGGAAGCTAGAGT 300
Db 2842 TGGTCTGCAACTTTATCGCTTCCATCCAGTCTATTAATTTGTCGCGGAAGCTAGAGT 2901
Qy 301 AAGTAGTTCGCGAGTTAATAGTTTGGCGAAGCTTGTGCGCATCTGCTCGAGCATCGTGT 360
Db 2902 AAGTAGTTCGCGAGTTAATAGTTTGGCGAAGCTTGTGCGCATCTGCTCGAGCATCGTGT 2961
Qy 361 GTCACGCTCGTCTGTTGCTATGCTTCCATTCAGCTCCGCTTCCCAACGATCAAGGCGAGT 420
Db 2962 GTCACGCTCGTCTGTTGCTATGCTTCCATTCAGCTCCGCTTCCCAACGATCAAGGCGAGT 3021
Qy 421 TACATGATCCCCCATGTTGTGCAAAAAGCGGTTAGCTCTCGGTCCTCCGATCGTTGT 480
Db 3022 TACATGATCCCCCATGTTGTGCAAAAAGCGGTTAGCTCTCGGTCCTCCGATCGTTGT 3081
Qy 481 CAGAAGTAAGTTGGCCGCGAG 500
Db 3082 CAGAAGTAAGTTGGCCGCGAG 3101

```

RESULT 14

```

PCT-US92-06185-49
; Sequence 49, Application PC/TUS9206185
; GENERAL INFORMATION:
; APPLICANT: Lonberg, Nils
; APPLICANT: Kay, Robert M.
; TITLE OF INVENTION: Transgenic Non-Human Animals Capable of
; TITLE OF INVENTION: Producing Heterologous Antibodies
; NUMBER OF SEQUENCES: 75
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: William M. Smith
; STREET: One Market Plaza, Steuart Tower, Suite 2000
; CITY: San Francisco
; STATE: California
; COUNTRY: USA
; ZIP: 94105
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: PCT/US92/06185
; FILING DATE: 19910828
; CLASSIFICATION:
; ATTORNEY/AGENT INFORMATION:
; NAME: Smith, William M.
; REGISTRATION NUMBER: 87654
; REFERENCE/DOCKET NUMBER: 14643-5
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 415-543-9600
; TELEFAX: 415-543-5043
; INFORMATION FOR SEQ ID NO: 49:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 3698 base pairs
; TYPE: NUCLEIC ACID
; STRANDEDNESS: single
; TOPOLOGY: linear

```

```

; MOLECULE TYPE: DNA (genomic)
PCT-US92-06185-49
Query Match 92.4%; Score 462; DB 5; Length 3698;
Best Local Similarity 99.2%; Pred. No. 1.7e-150;
Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;
Qy 1 ATATATGAGTAACTTGGTCTGACAGTTACCAATGCTTAATCAGTAGGACCTATCTCA 60
Db 2606 ATATATGAGTAACTTGGTCTGACAGTTACCAATGCTTAATCAGTAGGACCTATCTCA 2665
Qy 61 GCATCTGTCTATTTCGTTTCATCCATGAGTTGCTCGCAACTCCCGCGTGTAGATAACT 120
Db 2666 GCGATCTGTCTATTTCGTTTCAT-CCATAGTTGCTG--ACTCCCGTGTGTAGATAACT 2722
Qy 121 ACGNATCGGAGGGCTTACCATCTGGGCCCGACGTCCTGCAATGATACCGCGAAGCCACG 180
Db 2723 ACGNATCGGAGGGCTTACCATCTGGGCCCGACGTCCTGCAATGATACCGCG-AGACCCACG 2781
Qy 181 CTCACCGGCTCCAGATTATCAGCAATAAACCCAGCGAGCGGAGCGCGCAGAAG 240
Db 2782 CTCACCGGCTCCAGATTATCAGCAATAAACCCAGCGAGCGGAGCGCGCAGAAG 2841
Qy 241 TGGTCTGCAACTTTATCGCTTCCATCCAGTCTATTAATTTGTCGCGGAAGCTAGAGT 300
Db 2842 TGGTCTGCAACTTTATCGCTTCCATCCAGTCTATTAATTTGTCGCGGAAGCTAGAGT 2901
Qy 301 AAGTAGTTCGCGAGTTAATAGTTTGGCGAAGCTTGTGCGCATCTGCTCGAGCATCGTGT 360
Db 2902 AAGTAGTTCGCGAGTTAATAGTTTGGCGAAGCTTGTGCGCATCTGCTCGAGCATCGTGT 2961
Qy 361 GTCACGCTCGTCTGTTGCTATGCTTCCATTCAGCTCCGCTTCCCAACGATCAAGGCGAGT 420
Db 2962 GTCACGCTCGTCTGTTGCTATGCTTCCATTCAGCTCCGCTTCCCAACGATCAAGGCGAGT 3021
Qy 421 TACATGATCCCCCATGTTGTGCAAAAAGCGGTTAGCTCTCGGTCCTCCGATCGTTGT 480
Db 3022 TACATGATCCCCCATGTTGTGCAAAAAGCGGTTAGCTCTCGGTCCTCCGATCGTTGT 3081
Qy 481 CAGAAGTAAGTTGGCCGCGAG 500
Db 3082 CAGAAGTAAGTTGGCCGCGAG 3101

```

RESULT 15

```

US-08-053-131-120
; Sequence 120, Application US/08053131
; Patent No. 5661016
; GENERAL INFORMATION:
; APPLICANT: Lonberg, Nils
; APPLICANT: Kay, Robert M.
; TITLE OF INVENTION: Transgenic No. 5661016-Human Animals for
; TITLE OF INVENTION: Producing Heterologous Antibodies
; NUMBER OF SEQUENCES: 197
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Townsend and Townsend Kourie and Crew
; STREET: One Market Plaza, Steuart Tower, Suite 200
; CITY: San Francisco
; STATE: California
; COUNTRY: USA
; ZIP: 94105
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/053,131
; FILING DATE: 26-APR-1993
; CLASSIFICATION: 800
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/990,860
; FILING DATE: 16-DEC-1992

```

PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 07/810,279  
FILING DATE: 17-DEC-1991  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 07/853,408  
FILING DATE: 18-MAR-1992  
ATTORNEY/AGENT INFORMATION:  
NAME: Smith, William M.  
REGISTRATION NUMBER: 30,223  
REFERENCE/DOCKET NUMBER: 14643-9-3  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: 415-326-2400  
TELEFAX: 415-326-2422  
INFORMATION FOR SEQ ID NO: 120:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 3699 base pairs  
TYPE: nucleic acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
MOLECULE TYPE: DNA (genomic)  
US-08-053-131-120

Query Match 32.4%; Score 462; DB 1; Length 3699;  
Best Local Similarity 99.2%; Pred. No. 1.7e-150;  
Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;  
QY 1 ATATATGAGTAAGTCTGGTCTGACAGTTACCAATGCTTAATCAGTGAGGCGACCTATCTCA 60  
Db ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||  
QY 2607 ATATATGAGTAAGTCTGGTCTGACAGTTACCAATGCTTAATCAGTGAGGCGACCTATCTCA 2666  
Db ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||  
QY 61 GCGATCTGCTATTTCGTTTCATCCCATAGTTGCTGCAACTCCCGCTCGTGATAGATAACT 120  
Db ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||  
QY 2667 GCGATCTGCTATTTCGTTTCAT-CCATAGTTGCTG- -ACTCCCGCTCGTGATAGATAACT 2723  
Db ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||  
QY 121 ACGATCGGAGGGCTTACCATCTGGCCCCAGTCTGCAATGATACGGGAGACCCACG 180  
Db ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||  
QY 2724 ACGATCGGAGGGCTTACCATCTGGCCCCAGTCTGCAATGATACCGCG-AGACCCACG 2782  
Db ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||  
QY 181 CTCACGGCTCCAGATTATCAGCAATAAACACGCGGAAAGCGCGAGCGCAGAAG 240  
Db ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||  
QY 2783 CTCACGGCTCCAGATTATCAGCAATAAACACGCGGAAAGCGCGAGCGCAGAAG 2842  
Db ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||  
QY 241 TGGTCTGCAACTTTATCCGCCCTCCATCCAGTCTATTAATTGTTGCCGGAAGCTAGAGT 300  
Db ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||  
QY 2843 TGGTCTGCAACTTTATCCGCCCTCCATCCAGTCTATTAATTGTTGCCGGAAGCTAGAGT 2902  
Db ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||  
QY 301 AAGTAGTTGCCAGTTAAATAGTTTGGCAACGTTGTTGCCATTGTCAGGCATCGTGT 360  
Db ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||  
QY 2903 AAGTAGTTGCCAGTTAAATAGTTTGGCAACGTTGTTGCCATTGTCAGGCATCGTGT 2962  
Db ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||  
QY 361 GTCACGCTCGTGTGGTATGAGTTCATTTCAGCTCCGGTTCCCAACGATCAAGCGAGT 420  
Db ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||  
QY 2963 GTCACGCTCGTGTGGTATGAGTTCATTTCAGCTCCGGTTCCCAACGATCAAGCGAGT 3022  
Db ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||  
QY 421 TACATGATCCCCCATGTTGTGCAAAAAGCGGTAGTCTCTTCGGTCTCCGATCGTTGT 480  
Db ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||  
QY 3023 TACATGATCCCCCATGTTGTGCAAAAAGCGGTAGTCTCTTCGGTCTCCGATCGTTGT 3082  
Db ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||  
QY 481 CAGAAGTAAGTTGGCGGACG 500  
Db ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||  
QY 3083 CAGAAGTAAGTTGGCGGACG 3102  
Db ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||

Search completed: April 29, 2005, 05:17:46  
Job time : 155 secs

GenCore version 5.1.6  
Copyright (c) 1993 - 2005 Compugen Ltd.

OM nucleic - nucleic search, using sw model

Run on: April 29, 2005, 03:41:23 ; Search time 2574 Seconds  
(without alignments)

1182.534 Million cell updates/sec

Title: US-10-043-160-5\_COPY\_1\_500

Perfect score: 500

Sequence: 1 atatagagtaaaacttggtc.....cagaagtaagtggccgcag 500

Scoring table: IDENTITY NUC

Gapop 10.0 , Gapext 1.0

Searched: 5642217 seqs, 3043843248 residues

Total number of hits satisfying chosen parameters: 11284434

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : Published Applications NA:\*

- 1: /cgn2\_6/ptodata/2/pubpna/US07\_PUBCOMB.seq:\*
- 2: /cgn2\_6/ptodata/2/pubpna/PCT\_NEW\_PUB.seq:\*
- 3: /cgn2\_6/ptodata/2/pubpna/US06\_NEW\_PUB.seq:\*
- 4: /cgn2\_6/ptodata/2/pubpna/US06\_PUBCOMB.seq:\*
- 5: /cgn2\_6/ptodata/2/pubpna/US07\_NEW\_PUB.seq:\*
- 6: /cgn2\_6/ptodata/2/pubpna/PCTUS\_PUBCOMB.seq:\*
- 7: /cgn2\_6/ptodata/2/pubpna/US08\_NEW\_PUB.seq:\*
- 8: /cgn2\_6/ptodata/2/pubpna/US08\_PUBCOMB.seq:\*
- 9: /cgn2\_6/ptodata/2/pubpna/US09A\_PUBCOMB.seq:\*
- 10: /cgn2\_6/ptodata/2/pubpna/US09B\_PUBCOMB.seq:\*
- 11: /cgn2\_6/ptodata/2/pubpna/US09C\_PUBCOMB.seq:\*
- 12: /cgn2\_6/ptodata/2/pubpna/US09\_NEW\_PUB.seq:\*
- 13: /cgn2\_6/ptodata/2/pubpna/US10A\_PUBCOMB.seq:\*
- 14: /cgn2\_6/ptodata/2/pubpna/US10B\_PUBCOMB.seq:\*
- 15: /cgn2\_6/ptodata/2/pubpna/US10C\_PUBCOMB.seq:\*
- 16: /cgn2\_6/ptodata/2/pubpna/US10D\_PUBCOMB.seq:\*
- 17: /cgn2\_6/ptodata/2/pubpna/US10E\_PUBCOMB.seq:\*
- 18: /cgn2\_6/ptodata/2/pubpna/US10F\_PUBCOMB.seq:\*
- 19: /cgn2\_6/ptodata/2/pubpna/US10\_NEW\_PUB.seq:\*
- 20: /cgn2\_6/ptodata/2/pubpna/US11\_NEW\_PUB.seq:\*
- 21: /cgn2\_6/ptodata/2/pubpna/US60\_NEW\_PUB.seq:\*
- 22: /cgn2\_6/ptodata/2/pubpna/US60\_PUBCOMB.seq:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

| Result No. | Score | Query Match | Length | ID | Description        |
|------------|-------|-------------|--------|----|--------------------|
| 1          | 500   | 100.0       | 43228  | 18 | US-10-043-160-5    |
| 2          | 462   | 92.4        | 1086   | 16 | US-10-182-616-11   |
| 3          | 462   | 92.4        | 2212   | 10 | US-09-764-891-5577 |
| 4          | 462   | 92.4        | 2212   | 10 | US-09-764-891-5607 |
| 5          | 462   | 92.4        | 2213   | 9  | US-09-764-868-1456 |
| 6          | 462   | 92.4        | 2213   | 9  | US-09-764-868-1462 |
| 7          | 462   | 92.4        | 2213   | 10 | US-09-764-891-5570 |
| 8          | 462   | 92.4        | 2213   | 10 | US-09-764-891-5572 |
| 9          | 462   | 92.4        | 2213   | 10 | US-09-764-891-5600 |
| 10         | 462   | 92.4        | 2213   | 10 | US-09-764-891-5602 |
| 11         | 462   | 92.4        | 3159   | 9  | US-09-948-939-1    |

|                    |    |                   |      |      |     |    |
|--------------------|----|-------------------|------|------|-----|----|
| Sequence 4, Appli  | 15 | US-10-324-493-4   | 3159 | 92.4 | 462 | 12 |
| Sequence 1, Appli  | 10 | US-09-883-573-1   | 4021 | 92.4 | 462 | 13 |
| Sequence 5, Appli  | 9  | US-09-813-718-5   | 4100 | 92.4 | 462 | 14 |
| Sequence 5, Appli  | 17 | US-10-240-532-5   | 4100 | 92.4 | 462 | 15 |
| Sequence 5, Appli  | 18 | US-10-240-527A-5  | 4100 | 92.4 | 462 | 16 |
| Sequence 2, Appli  | 8  | US-08-901-062-2   | 4231 | 92.4 | 462 | 17 |
| Sequence 30, Appli | 15 | US-10-161-403-30  | 4257 | 92.4 | 462 | 18 |
| Sequence 22, Appli | 18 | US-10-161-408-22  | 4257 | 92.4 | 462 | 19 |
| Sequence 52, Appli | 16 | US-10-270-487-52  | 4458 | 92.4 | 462 | 20 |
| Sequence 14, Appli | 18 | US-10-742-634-14  | 4458 | 92.4 | 462 | 21 |
| GENERAL INFORMA    | 17 | US-10-457-372-5   | 4557 | 92.4 | 462 | 22 |
| Sequence 3, Appli  | 9  | US-09-813-718-3   | 4682 | 92.4 | 462 | 23 |
| Sequence 7, Appli  | 9  | US-09-813-718-7   | 4682 | 92.4 | 462 | 24 |
| Sequence 7, Appli  | 17 | US-10-240-532-3   | 4682 | 92.4 | 462 | 25 |
| Sequence 3, Appli  | 17 | US-10-240-532-7   | 4682 | 92.4 | 462 | 26 |
| Sequence 7, Appli  | 18 | US-10-240-527A-3  | 4682 | 92.4 | 462 | 27 |
| Sequence 3, Appli  | 18 | US-10-240-527A-7  | 4682 | 92.4 | 462 | 28 |
| Sequence 15, Appli | 9  | US-09-813-718-15  | 4742 | 92.4 | 462 | 29 |
| Sequence 6, Appli  | 14 | US-10-080-839-6   | 4742 | 92.4 | 462 | 30 |
| Sequence 15, Appli | 17 | US-10-240-532-15  | 4742 | 92.4 | 462 | 31 |
| Sequence 15, Appli | 18 | US-10-240-527A-15 | 4742 | 92.4 | 462 | 32 |
| Sequence 1, Appli  | 18 | US-10-628-783-1   | 4742 | 92.4 | 462 | 33 |
| Sequence 1, Appli  | 19 | US-10-833-743-1   | 4742 | 92.4 | 462 | 34 |
| Sequence 4, Appli  | 17 | US-10-383-846-4   | 4752 | 92.4 | 462 | 35 |
| Sequence 13, Appli | 9  | US-09-813-718-13  | 4811 | 92.4 | 462 | 36 |
| Sequence 4, Appli  | 14 | US-10-080-839-4   | 4811 | 92.4 | 462 | 37 |
| Sequence 13, Appli | 17 | US-10-240-532-13  | 4811 | 92.4 | 462 | 38 |
| Sequence 13, Appli | 18 | US-10-240-527A-13 | 4811 | 92.4 | 462 | 39 |
| Sequence 11, Appli | 9  | US-09-813-718-11  | 4877 | 92.4 | 462 | 40 |
| Sequence 2, Appli  | 14 | US-10-080-839-2   | 4877 | 92.4 | 462 | 41 |
| Sequence 11, Appli | 17 | US-10-240-532-11  | 4877 | 92.4 | 462 | 42 |
| Sequence 11, Appli | 18 | US-10-240-527A-11 | 4877 | 92.4 | 462 | 43 |
| Sequence 20, Appli | 18 | US-10-622-220-20  | 4884 | 92.4 | 462 | 44 |
| Sequence 19, Appli | 18 | US-10-600-790-19  | 4899 | 92.4 | 462 | 45 |

## ALIGNMENTS

RESULT 1  
US-10-043-160-5  
; Sequence 5, Application US/10043160  
; Publication No. US20040170952A1  
; GENERAL INFORMATION:  
; APPLICANT: ZOOBIO, RIMA  
; APPLICANT: AUFRAY, CHARLES  
; APPLICANT: CHAUSSE, ANNE-MARIE  
; TITLE OF INVENTION: REAGENTS AND METHODS FOR DETECTING GENES RELATED TO  
; TITLE OF INVENTION: MAJOR HISTOCOMPATIBILITY COMPLEX OF DOMESTIC FOWL, SUCH  
; FILE REFERENCE: 1721-22  
; CURRENT APPLICATION NUMBER: US/10/043,160  
; PRIOR FILING DATE: 2002-01-14  
; PRIOR APPLICATION NUMBER: 09/554,911  
; PRIOR FILING DATE: 2000-07-24  
; PRIOR APPLICATION NUMBER: PCT/FR98/02501  
; PRIOR FILING DATE: 1998-11-23  
; PRIOR APPLICATION NUMBER: FR 97/14669  
; PRIOR FILING DATE: 1997-11-21  
; NUMBER OF SEQ ID NOS: 54  
; SOFTWARE: PatentIn Ver. 2.1  
; SEQ ID NO 5  
; LENGTH: 43228  
; TYPE: DNA  
; ORGANISM: Gallus sp.  
; FEATURE:  
; NAME/KEY: modified base  
; LOCATION: (1)..(43228)  
; OTHER INFORMATION: "n" represents a, t, c, g, other or unknown  
US-10-043-160-5

Query Match 100.0%; Score 500; DB 18; Length 43228;  
Best Local Similarity 100.0%; Pred. No. 6.1e-162;

Matches 500; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATATATGAGTAAACTTGGTCTGACAGTTACCAATGCTTAATCATGAGTGAGGACCTATCTCA 60  
 Db 1 ATATATGAGTAAACTTGGTCTGACAGTTACCAATGCTTAATCATGAGTGAGGACCTATCTCA 60  
 QY 61 GCGATCTGCTATTTGTTTCATCCCACTAGTTCCTGCACTCCCGTTCGTTGATAGTAACT 120  
 Db 61 GCGATCTGCTATTTGTTTCATCCCACTAGTTCCTGCACTCCCGTTCGTTGATAGTAACT 120  
 QY 121 ACGATACGGGAGGGCTTACCATCTGGCCCCAGTGTGCAATGATACCGCGAAGACCCACG 180  
 Db 121 ACGATACGGGAGGGCTTACCATCTGGCCCCAGTGTGCAATGATACCGCGAAGACCCACG 180  
 QY 181 CTCACGGCTCCAGATTTATCAGCAATAAACAGCCAGCCGGAAGGCGGAGCGCAGAAG 240  
 Db 181 CTCACGGCTCCAGATTTATCAGCAATAAACAGCCAGCCGGAAGGCGGAGCGCAGAAG 240  
 QY 241 TGGTCTGCAACTTTATCCGCTCCATCCAGTCTATTAAATTTGTCGGGAAGCTAGAGT 300  
 Db 241 TGGTCTGCAACTTTATCCGCTCCATCCAGTCTATTAAATTTGTCGGGAAGCTAGAGT 300  
 QY 301 AAGTAGTTCGCCAGTTAAATAGTTTGGCAACGTTGTTGCCATTTGCTCGAGGCATCGTGT 360  
 Db 301 AAGTAGTTCGCCAGTTAAATAGTTTGGCAACGTTGTTGCCATTTGCTCGAGGCATCGTGT 360  
 QY 361 GTCACGCTCGTGTGGTATGCTTCATTCAGCTCGGTTGCCAAGCATCAAGGCGAGT 420  
 Db 361 GTCACGCTCGTGTGGTATGCTTCATTCAGCTCGGTTGCCAAGCATCAAGGCGAGT 420  
 QY 421 TACATGATCCCCCATGTTGTCGCAAAAGCGTTAGTCTCGTCCCTCCGATCGTTGT 480  
 Db 421 TACATGATCCCCCATGTTGTCGCAAAAGCGTTAGTCTCGTCCCTCCGATCGTTGT 480  
 QY 481 CAGAAGTAAAGTTGGCGCGAG 500  
 Db 481 CAGAAGTAAAGTTGGCGCGAG 500

RESULT 2  
 US-10-182-616-11  
 ; Sequence 11, Application US/10182616  
 ; Publication No. US20030159184A1  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Sakata Seed Corporation et al.  
 ; TITLE OF INVENTION: Methods and Constructs for Plant Transformation  
 ; FILE REFERENCE: 78592-3  
 ; CURRENT APPLICATION NUMBER: US/10/182,616  
 ; CURRENT FILING DATE: 2002-08-01  
 ; NUMBER OF SEQ ID NOS: 31  
 ; SOFTWARE: PatentIn version 3.0  
 ; SEQ ID NO 11  
 ; TYPE: DNA  
 ; ORGANISM: Artificial Sequence  
 ; FEATURE:  
 ; OTHER INFORMATION: Ampicillin resistance gene: pBR322 GenBank Accession No. US20030159184A1  
 ; OTHER INFORMATION: 3265-4350  
 US-10-182-616-11

Query Match 92.4%; Score 462; DB 16; Length 1086;  
 Best Local Similarity 99.2%; Pred. No. 1.9e-149;  
 Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;

QY 1 ATATATGAGTAAACTTGGTCTGACAGTTACCAATGCTTAATCATGAGTGAGGACCTATCTCA 60  
 Db 3 ATATATGAGTAAACTTGGTCTGACAGTTACCAATGCTTAATCATGAGTGAGGACCTATCTCA 62  
 QY 61 GCGATCTGCTATTTGTTTCATCCCACTAGTTCCTGCACTCCCGTTCGTTGATAGTAACT 120  
 Db 63 GCGATCTGCTATTTGTTTCATCCCACTAGTTCCTGCACTCCCGTTCGTTGATAGTAACT 119  
 QY 121 ACGATACGGGAGGGCTTACCATCTGGCCCCAGTGTGCAATGATACCGCGAAGACCCACG 180

Db 120 ACGATACGGGAGGGCTTACCATCTGGCCCCAGTGTGCAATGATACCGCG-AGACCCACG 178  
 QY 181 CTCACGGCTCCAGATTTATCAGCAATAAACAGCCAGCCGGAAGGCGGAGCGCAGAAG 240  
 Db 179 CTCACGGCTCCAGATTTATCAGCAATAAACAGCCAGCCGGAAGGCGGAGCGCAGAAG 238  
 QY 241 TGGTCTGCAACTTTATCCGCTCCATCCAGTCTATTAAATTTGTCGGGAAGCTAGAGT 300  
 Db 239 TGGTCTGCAACTTTATCCGCTCCATCCAGTCTATTAAATTTGTCGGGAAGCTAGAGT 298  
 QY 301 AAGTAGTTCGCCAGTTAAATAGTTTGGCAACGTTGTTGCCATTTGTCGAGGCATCGTGT 360  
 Db 299 AAGTAGTTCGCCAGTTAAATAGTTTGGCAACGTTGTTGCCATTTGTCGAGGCATCGTGT 358  
 QY 361 GTCACGCTCGTGTGGTATGCTTCATTCAGCTCGGTTGCCAAGCATCAAGGCGAGT 420  
 Db 359 GTCACGCTCGTGTGGTATGCTTCATTCAGCTCGGTTGCCAAGCATCAAGGCGAGT 418  
 QY 421 TACATGATCCCCCATGTTGTCGCAAAAGCGTTAGTCTCGTCCCTCCGATCGTTGT 480  
 Db 419 TACATGATCCCCCATGTTGTCGCAAAAGCGTTAGTCTCGTCCCTCCGATCGTTGT 478  
 QY 481 CAGAAGTAAAGTTGGCGCGAG 500  
 Db 479 CAGAAGTAAAGTTGGCGCGAG 498

RESULT 3  
 US-09-764-891-5577/c  
 ; Sequence 5577, Application US/09764891  
 ; Publication No. US20030077808A1  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Rosen et al.  
 ; TITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies  
 ; FILE REFERENCE: PC006  
 ; CURRENT APPLICATION NUMBER: US/09/764,891  
 ; CURRENT FILING DATE: 2001-01-17  
 ; Prior application data removed - consult PALM or file wrapper  
 ; NUMBER OF SEQ ID NOS: 10231  
 ; SOFTWARE: PatentIn Ver. 2.0  
 ; SEQ ID NO 5577  
 ; LENGTH: 2212  
 ; TYPE: DNA  
 ; ORGANISM: Homo sapiens  
 US-09-764-891-5577

Query Match 92.4%; Score 462; DB 10; Length 2212;  
 Best Local Similarity 99.2%; Pred. No. 2.6e-149;  
 Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;

QY 1 ATATATGAGTAAACTTGGTCTGACAGTTACCAATGCTTAATCATGAGTGAGGACCTATCTCA 60  
 Db 1098 ATATATGAGTAAACTTGGTCTGACAGTTACCAATGCTTAATCATGAGTGAGGACCTATCTCA 1039  
 QY 61 GCGATCTGCTATTTGTTTCATCCCACTAGTTCCTGCACTCCCGTTCGTTGATAGTAACT 120  
 Db 1038 GCGATCTGCTATTTGTTTCATCCCACTAGTTCCTGCACTCCCGTTCGTTGATAGTAACT 982  
 QY 121 ACGATACGGGAGGGCTTACCATCTGGCCCCAGTGTGCAATGATACCGCGAAGACCCACG 180  
 Db 981 ACGATACGGGAGGGCTTACCATCTGGCCCCAGTGTGCAATGATACCGCG-AGACCCACG 923  
 QY 181 CTCACGGCTCCAGATTTATCAGCAATAAACAGCCAGCCGGAAGGCGGAGCGCAGAAG 240  
 Db 922 CTCACGGCTCCAGATTTATCAGCAATAAACAGCCAGCCGGAAGGCGGAGCGCAGAAG 863  
 QY 241 TGGTCTGCAACTTTATCCGCTCCATCCAGTCTATTAAATTTGTCGGGAAGCTAGAGT 300  
 Db 862 TGGTCTGCAACTTTATCCGCTCCATCCAGTCTATTAAATTTGTCGGGAAGCTAGAGT 803  
 QY 301 AAGTAGTTCGCCAGTTAAATAGTTTGGCAACGTTGTTGCCATTTGTCGAGGCATCGTGT 360

Db 802 AAGTAGTTCGCCAGTTAATAGTTGGCCAAAGTTGTTGCCATTGCTCGCAGGCATCGTGT 743  
 Qy 361 GTCACGCTCGTCTGTTGGTATAGCTTCATTAGCTCCGGTTCCTCAACAGATCAAGGCGAGT 420  
 Db 742 GTCACGCTCGTCTGTTGGTATAGCTTCATTAGCTCCGGTTCCTCAACAGATCAAGGCGAGT 683  
 Qy 421 TACATGATCCCCCATGTTGTCGCAAAAAGCGGTAGCTCCTTCGGTCTCCGATCGTTGT 480  
 Db 682 TACATGATCCCCCATGTTGTCGCAAAAAGCGGTAGCTCCTTCGGTCTCCGATCGTTGT 623  
 Qy 481 CAGAAGTAAGTTGGCCGAG 500  
 Db 622 CAGAAGTAAGTTGGCCGAG 603

RESULT 4  
 US-09-764-891-5607/c  
 ; Sequence 5607, Application US/09764891  
 ; Publication No. US20030077808A1  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Rosen et al.  
 ; TITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies  
 ; FILE REFERENCE: PC006  
 ; CURRENT APPLICATION NUMBER: US/09/764,891  
 ; CURRENT FILING DATE: 2001-01-17  
 ; Prior application data removed - consult PALM or file wrapper  
 ; NUMBER OF SEQ ID NOS: 10231  
 ; SOFTWARE: PatentIn Ver. 2.0  
 ; SEQ ID NO 5607  
 ; LENGTH: 2212  
 ; TYPE: DNA  
 ; ORGANISM: Homo sapiens  
 US-09-764-891-5607

Query Match 92.4%; Score 462; DB 10; Length 2212;  
 Best Local Similarity 99.2%; Pred. No. 2.6e-149;  
 Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;  
 Qy 1 ATATATGAGTAACTTGGTCTGACAGTTACCAATGCTTAATCAGTGAGGACCTATCTCA 60  
 Db 1098 ATATATGAGTAACTTGGTCTGACAGTTACCAATGCTTAATCAGTGAGGACCTATCTCA 1039  
 Qy 61 GCGATCTGTCTATTTCGTTTCATCCCATAGTTCCCTGCAACTCCCGTCTGTAGATAACT 120  
 Db 1038 GCGATCTGTCTATTTCGTTTCAT--CCATAGTTGCTG--ACTCCCGTCTGTAGATAACT 982  
 Qy 121 ACGATACGGAGGGCTTACCATCTGGCCCCAGTGTGCAATGATACCGGAAGACCCACG 180  
 Db 981 ACGATACGGAGGGCTTACCATCTGGCCCCAGTGTGCAATGATACCGG--AGACCCACG 923  
 Qy 181 CTCACGGCTCCAGATTATCAGCAATAAACCAGCCAGCCGGAAGGCGGCGCAGAAG 240  
 Db 922 CTCACGGCTCCAGATTATCAGCAATAAACCAGCCAGCCGGAAGGCGGCGCAGAAG 863  
 Qy 241 TGGTCTGCAACTTTATCCGCTCCATCCAGTCTATTATTTGTCGGGGAAGCTAGAGT 300  
 Db 862 TGGTCTGCAACTTTATCCGCTCCATCCAGTCTATTATTTGTCGGGGAAGCTAGAGT 803  
 Qy 301 AAGTAGTTCGCCAGTTAATAGTTTTCGCAACCGTTGTCATTTGTCGAGGATCGTGT 360  
 Db 981 ACGATACGGAGGGCTTACCATCTGGCCCCAGTGTGCAATGATACCGGAAGACCCACG 180  
 Db 981 ACGATACGGAGGGCTTACCATCTGGCCCCAGTGTGCAATGATACCGG--AGACCCACG 923  
 Qy 181 CTCACGGCTCCAGATTATCAGCAATAAACCAGCCAGCCGGAAGGCGGCGCAGAAG 240  
 Db 922 CTCACGGCTCCAGATTATCAGCAATAAACCAGCCAGCCGGAAGGCGGCGCAGAAG 863  
 Qy 241 TGGTCTGCAACTTTATCCGCTCCATCCAGTCTATTATTTGTCGGGGAAGCTAGAGT 300  
 Db 862 TGGTCTGCAACTTTATCCGCTCCATCCAGTCTATTATTTGTCGGGGAAGCTAGAGT 803  
 Qy 301 AAGTAGTTCGCCAGTTAATAGTTTTCGCAACCGTTGTCATTTGTCGAGGATCGTGT 360  
 Db 802 AAGTAGTTCGCCAGTTAATAGTTTTCGCAACCGTTGTCATTTGTCGAGGATCGTGT 743  
 Qy 361 GTCACGCTCGTCTGTTGGTATAGCTTCATTAGCTCCGGTTCCTCAACAGATCAAGGCGAGT 420  
 Db 742 GTCACGCTCGTCTGTTGGTATAGCTTCATTAGCTCCGGTTCCTCAACAGATCAAGGCGAGT 683  
 Qy 421 TACATGATCCCCCATGTTGTCGCAAAAAGCGGTAGCTCCTTCGGTCTCCGATCGTTGT 480  
 Db 682 TACATGATCCCCCATGTTGTCGCAAAAAGCGGTAGCTCCTTCGGTCTCCGATCGTTGT 623  
 Qy 481 CAGAAGTAAGTTGGCCGAG 500  
 Db 622 CAGAAGTAAGTTGGCCGAG 603

RESULT 5  
 US-09-764-868-1456/c  
 ; Sequence 1456, Application US/09764868  
 ; Patent No. US20030168711A1  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Rosen et al.  
 ; TITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies  
 ; FILE REFERENCE: PT232  
 ; CURRENT APPLICATION NUMBER: US/09/764,868  
 ; CURRENT FILING DATE: 2001-01-17  
 ; Prior application data removed - refer to PALM or file wrapper  
 ; NUMBER OF SEQ ID NOS: 1510  
 ; SOFTWARE: PatentIn Ver. 2.0  
 ; SEQ ID NO 1456  
 ; LENGTH: 2213  
 ; TYPE: DNA  
 ; ORGANISM: Homo sapiens  
 US-09-764-868-1456

Query Match 92.4%; Score 462; DB 9; Length 2213;  
 Best Local Similarity 99.2%; Pred. No. 2.6e-149;  
 Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;  
 Qy 1 ATATATGAGTAACTTGGTCTGACAGTTACCAATGCTTAATCAGTGAGGACCTATCTCA 60  
 Db 1098 ATATATGAGTAACTTGGTCTGACAGTTACCAATGCTTAATCAGTGAGGACCTATCTCA 1039  
 Qy 61 GCGATCTGTCTATTTCGTTTCATCCCATAGTTCCCTGCAACTCCCGTCTGTAGATAACT 120  
 Db 1038 GCGATCTGTCTATTTCGTTTCAT--CCATAGTTGCTG--ACTCCCGTCTGTAGATAACT 982  
 Qy 121 ACGATACGGAGGGCTTACCATCTGGCCCCAGTGTGCAATGATACCGGAAGACCCACG 180  
 Db 981 ACGATACGGAGGGCTTACCATCTGGCCCCAGTGTGCAATGATACCGG--AGACCCACG 923  
 Qy 181 CTCACGGCTCCAGATTATCAGCAATAAACCAGCCAGCCGGAAGGCGGCGCAGAAG 240  
 Db 922 CTCACGGCTCCAGATTATCAGCAATAAACCAGCCAGCCGGAAGGCGGCGCAGAAG 863  
 Qy 241 TGGTCTGCAACTTTATCCGCTCCATCCAGTCTATTATTTGTCGGGGAAGCTAGAGT 300  
 Db 862 TGGTCTGCAACTTTATCCGCTCCATCCAGTCTATTATTTGTCGGGGAAGCTAGAGT 803  
 Qy 301 AAGTAGTTCGCCAGTTAATAGTTTTCGCAACCGTTGTCATTTGTCGAGGATCGTGT 360  
 Db 802 AAGTAGTTCGCCAGTTAATAGTTTTCGCAACCGTTGTCATTTGTCGAGGATCGTGT 743  
 Qy 361 GTCACGCTCGTCTGTTGGTATAGCTTCATTAGCTCCGGTTCCTCAACAGATCAAGGCGAGT 420  
 Db 742 GTCACGCTCGTCTGTTGGTATAGCTTCATTAGCTCCGGTTCCTCAACAGATCAAGGCGAGT 683  
 Qy 421 TACATGATCCCCCATGTTGTCGCAAAAAGCGGTAGCTCCTTCGGTCTCCGATCGTTGT 480  
 Db 682 TACATGATCCCCCATGTTGTCGCAAAAAGCGGTAGCTCCTTCGGTCTCCGATCGTTGT 623  
 Qy 481 CAGAAGTAAGTTGGCCGAG 500  
 Db 622 CAGAAGTAAGTTGGCCGAG 603

RESULT 6  
 US-09-764-868-1462/c  
 ; Sequence 1462, Application US/09764868  
 ; Patent No. US20030168711A1  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Rosen et al.  
 ; TITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies  
 ; FILE REFERENCE: PT232  
 ; CURRENT APPLICATION NUMBER: US/09/764,868  
 ; CURRENT FILING DATE: 2001-01-17  
 ; Prior application data removed - refer to PALM or file wrapper

NUMBER OF SEQ ID NOS: 1510  
; SOFTWARE: PatentIn Ver. 2.0  
; SEQ ID NO 1462  
; LENGTH: 2213  
; TYPE: DNA  
; ORGANISM: Homo sapiens  
US-09-764-868-1462

Query Match 92.4%; Score 462; DB 9; Length 2213;  
Best Local Similarity 99.2%; Pred. No. 2.6e-149;  
Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;  
QY 1 ATATATGAGTAAACTTGGTCTGACAGTTACCAATGCTTAATCAGTGGGACCTATCTCA 60  
Db 1098 ATATATGAGTAAACTTGGTCTGACAGTTACCAATGCTTAATCAGTGGGACCTATCTCA 1039  
QY 61 GCGATCTGTCTATTTTGGTTCATCCCATAGTTGCTGCAACTCCCGTCGNGTAGATAACT 120  
Db 1038 GCGATCTGTCTATTTTGGTTCAT--CCATAGTTGCTG--ACTCCCGTCGNGTAGATAACT 982  
QY 121 ACGATACGGAGGGCTTACCATCTGGCCCACTGCTGCAATGATACCGGAGACCCACG 180  
Db 981 ACGATACGGAGGGCTTACCATCTGGCCCACTGCTGCAATGATACCGG--AGACCCACG 923  
QY 181 CTCACCGGCTCCAGATTATCAGCAATAAACACCGAGCGGAGCGCGAGAG 240  
Db 922 CTCACCGGCTCCAGATTATCAGCAATAAACACCGAGCGGAGCGCGAGAG 863  
QY 241 TGGTCTGTGCAACTTTATCCGCTTCCATCCAGTCTTATTAATTTGTCGGGAAGCTAGAGT 300  
Db 862 TGGTCTGTGCAACTTTATCCGCTTCCATCCAGTCTTATTAATTTGTCGGGAAGCTAGAGT 803  
QY 301 AAGTAGTTCGCCAGTTAATAGTTTGGCAACGTTTGCATTCAGTCCGATCAAGGCGAGT 360  
Db 802 AAGTAGTTCGCCAGTTAATAGTTTGGCAACGTTTGCATTCAGTCCGATCAAGGCGAGT 743  
QY 361 GTCAAGTTCGCCAGTTAATAGTTTGGCAACGTTTGCATTCAGTCCGATCAAGGCGAGT 420  
Db 742 GTCAAGTTCGCCAGTTAATAGTTTGGCAACGTTTGCATTCAGTCCGATCAAGGCGAGT 683  
QY 421 TACATGATCCCCCATGTTGTCGCAAAAGCGGTTAGCTCTTCCGTCCTCCGATCGTTGT 480  
Db 682 TACATGATCCCCCATGTTGTCGCAAAAGCGGTTAGCTCTTCCGTCCTCCGATCGTTGT 623  
QY 481 CAGAAGTAAAGTTGGCGCGAG 500  
Db 622 CAGAAGTAAAGTTGGCGCGAG 603

RESULT 7  
US-09-764-891-5570/c  
; Sequence 5570, Application US/09764891  
; Publication No. US20030077808A1  
; GENERAL INFORMATION:  
; APPLICANT: Rosen et al.  
; TITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies  
; FILE REFERENCE: PC006  
; CURRENT APPLICATION NUMBER: US/09/764,891  
; CURRENT FILING DATE: 2001-01-17  
; Prior application data removed - consult PALM or file wrapper  
; NUMBER OF SEQ ID NOS: 10231  
; SOFTWARE: PatentIn Ver. 2.0  
; SEQ ID NO 5570  
; LENGTH: 2213  
; TYPE: DNA  
; ORGANISM: Homo sapiens  
US-09-764-891-5570

Query Match 92.4%; Score 462; DB 10; Length 2213;  
Best Local Similarity 99.2%; Pred. No. 2.6e-149;  
Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;  
QY 1 ATATATGAGTAAACTTGGTCTGACAGTTACCAATGCTTAATCAGTGGGACCTATCTCA 60

Db 1098 ATATATGAGTAAACTTGGTCTGACAGTTACCAATGCTTAATCAGTGGGACCTATCTCA 1039  
QY 61 GCGATCTGTCTATTTTGGTTCATCCCATAGTTGCTGCAACTCCCGTCGNGTAGATAACT 120  
Db 1038 GCGATCTGTCTATTTTGGTTCAT--CCATAGTTGCTG--ACTCCCGTCGNGTAGATAACT 982  
QY 121 ACGATACGGAGGGCTTACCATCTGGCCCACTGCTGCAATGATACCGGAGACCCACG 180  
Db 981 ACGATACGGAGGGCTTACCATCTGGCCCACTGCTGCAATGATACCGG--AGACCCACG 923  
QY 181 CTCACCGGCTCCAGATTATCAGCAATAAACACCGAGCGGAGCGCGAGAG 240  
Db 922 CTCACCGGCTCCAGATTATCAGCAATAAACACCGAGCGGAGCGCGAGAG 863  
QY 241 TGGTCTGTGCAACTTTATCCGCTTCCATCCAGTCTTATTAATTTGTCGGGAAGCTAGAGT 300  
Db 862 TGGTCTGTGCAACTTTATCCGCTTCCATCCAGTCTTATTAATTTGTCGGGAAGCTAGAGT 803  
QY 301 AAGTAGTTCGCCAGTTAATAGTTTGGCAACGTTTGCATTCAGTCCGATCAAGGCGAGT 360  
Db 802 AAGTAGTTCGCCAGTTAATAGTTTGGCAACGTTTGCATTCAGTCCGATCAAGGCGAGT 743  
QY 361 GTCAAGTTCGCCAGTTAATAGTTTGGCAACGTTTGCATTCAGTCCGATCAAGGCGAGT 420  
Db 742 GTCAAGTTCGCCAGTTAATAGTTTGGCAACGTTTGCATTCAGTCCGATCAAGGCGAGT 683  
QY 421 TACATGATCCCCCATGTTGTCGCAAAAGCGGTTAGCTCTTCCGTCCTCCGATCGTTGT 480  
Db 682 TACATGATCCCCCATGTTGTCGCAAAAGCGGTTAGCTCTTCCGTCCTCCGATCGTTGT 623  
QY 481 CAGAAGTAAAGTTGGCGCGAG 500  
Db 622 CAGAAGTAAAGTTGGCGCGAG 603

RESULT 8  
US-09-764-891-5572/c  
; Sequence 5572, Application US/09764891  
; Publication No. US20030077808A1  
; GENERAL INFORMATION:  
; APPLICANT: Rosen et al.  
; TITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies  
; FILE REFERENCE: PC006  
; CURRENT APPLICATION NUMBER: US/09/764,891  
; CURRENT FILING DATE: 2001-01-17  
; Prior application data removed - consult PALM or file wrapper  
; NUMBER OF SEQ ID NOS: 10231  
; SOFTWARE: PatentIn Ver. 2.0  
; SEQ ID NO 5572  
; LENGTH: 2213  
; TYPE: DNA  
; ORGANISM: Homo sapiens  
US-09-764-891-5572

Query Match 92.4%; Score 462; DB 10; Length 2213;  
Best Local Similarity 99.2%; Pred. No. 2.6e-149;  
Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;  
QY 1 ATATATGAGTAAACTTGGTCTGACAGTTACCAATGCTTAATCAGTGGGACCTATCTCA 60  
Db 1098 ATATATGAGTAAACTTGGTCTGACAGTTACCAATGCTTAATCAGTGGGACCTATCTCA 1039  
QY 61 GCGATCTGTCTATTTTGGTTCATCCCATAGTTGCTGCAACTCCCGTCGNGTAGATAACT 120  
Db 1038 GCGATCTGTCTATTTTGGTTCAT--CCATAGTTGCTG--ACTCCCGTCGNGTAGATAACT 982  
QY 121 ACGATACGGAGGGCTTACCATCTGGCCCACTGCTGCAATGATACCGGAGACCCACG 180  
Db 981 ACGATACGGAGGGCTTACCATCTGGCCCACTGCTGCAATGATACCGG--AGACCCACG 923  
QY 181 CTCACCGGCTCCAGATTATCAGCAATAAACACCGAGCGGAGCGCGAGAG 240



Db 922 CTCACGGCTCCAGATTATACAGAAATAAACACAGCAGCGCGGAAGCGCGCAGAG 863  
QY 241 TGGTCTCTGCAACTTTATCCGCCCTCCATCCAGTCTATTAAATTTGTCGGGGAAGCTAGAGT 300  
Db 862 TGGTCTCTGCAACTTTATCCGCCCTCCATCCAGTCTATTAAATTTGTCGGGGAAGCTAGAGT 803  
QY 301 AAGTAGTTCCGCAAGTTAATAGTTTGGCGCAACGTTGTTGCCATTGCTGCGAGGCATCGTGGT 360  
Db 802 AAGTAGTTCCGCAAGTTAATAGTTTGGCGCAACGTTGTTGCCATTGCTGCGAGGCATCGTGGT 743  
QY 361 GTCACGCTCGTCTGTTGGTATGCTTCATTACAGTCCGCTCCCAACGATCAAGGCGAGT 420  
Db 742 GTCACGCTCGTCTGTTGGTATGCTTCATTACAGTCCGCTCCCAACGATCAAGGCGAGT 683  
QY 421 TACATGATCCCCCATGTTGTGCAAAAAAGCGGTTAGTCTCTCGGTCCTCCGATCGTTGT 480  
Db 682 TACATGATCCCCCATGTTGTGCAAAAAAGCGGTTAGTCTCTCGGTCCTCCGATCGTTGT 623  
QY 481 CAGAAGTAAGTTGGCGCGAG 500  
Db 622 CAGAAGTAAGTTGGCGCGAG 603

RESULT 9  
US-09-764-891-5600/c  
; Sequence 5600, Application US/09764891  
; Publication No. US20030077808A1  
; GENERAL INFORMATION:  
; APPLICANT: Rosen et al.  
; TITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies  
; FILE REFERENCE: PC006  
; CURRENT APPLICATION NUMBER: US/09/764,891  
; CURRENT FILING DATE: 2001-01-17  
; Prior application data removed - consult PALM or file wrapper  
; NUMBER OF SEQ ID NOS: 10231  
; SOFTWARE: PatentIn Ver. 2.0  
; SEQ ID NO 5600  
; LENGTH: 2213  
; TYPE: DNA  
; ORGANISM: Homo sapiens  
US-09-764-891-5600

Query Match 92.4%; Score 462; DB 10; Length 2213;  
Best Local Similarity 99.2%; Pred. No. 2.6e-149;  
Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;

QY 1 ATATATGAGTAAGTCTGCTGACAGTTACCAATGCTTAATCAGTGAGGACCTATCTCA 60  
Db 1098 ATATATGAGTAAGTCTGCTGACAGTTACCAATGCTTAATCAGTGAGGACCTATCTCA 1039

QY 61 GCGATCTGTCTATTTCGTTTCATCCCATAGTTGCTTGCCTGCAACTCCCGTCTGTAGATAACT 120  
Db 1038 GCGATCTGTCTATTTCGTTTCAT--CCATAGTTGCTG--ACTCCCGTCTGTAGATAACT 982

QY 121 ACGATACGGGAGGCTTACCATCTGCCCCAGTGTGCAATGATACCGGGAAGACCCAG 180  
Db 981 ACGATACGGGAGGCTTACCATCTGCCCCAGTGTGCAATGATACCGG--AGACCCAG 923

QY 181 CTCACGGGCTCCAGATTTATCAGCAATTAACACGAGCCGCGGAGGCGGAGCAGAG 240  
Db 922 CTCACGGGCTCCAGATTTATCAGCAATTAACACGAGCCGCGGAGGCGGAGCAGAG 863

QY 241 TGGTCTCTGCAACTTTATCCGCTCCATCCAGTCTATTAAATTTGTCGGGGAAGCTAGAGT 300  
Db 862 TGGTCTCTGCAACTTTATCCGCTCCATCCAGTCTATTAAATTTGTCGGGGAAGCTAGAGT 803

QY 301 AAGTAGTTCCGCAAGTTAATAGTTTGGCGCAACGTTGTTGCCATTGCTGCGAGGCATCGTGGT 360  
Db 802 AAGTAGTTCCGCAAGTTAATAGTTTGGCGCAACGTTGTTGCCATTGCTGCGAGGCATCGTGGT 743

QY 361 GTCACGCTCGTCTGTTGGTATGCTTCATTACAGTCCGCTCCCAACGATCAAGGCGAGT 420  
Db 742 GTCACGCTCGTCTGTTGGTATGCTTCATTACAGTCCGCTCCCAACGATCAAGGCGAGT 683

QY 421 TACATGATCCCCCATGTTGTGCAAAAAAGCGGTTAGTCTCTCGGTCCTCCGATCGTTGT 480  
Db 682 TACATGATCCCCCATGTTGTGCAAAAAAGCGGTTAGTCTCTCGGTCCTCCGATCGTTGT 623

QY 481 CAGAAGTAAGTTGGCGCGAG 500  
Db 622 CAGAAGTAAGTTGGCGCGAG 603

RESULT 11  
US-09-948-939-1  
; Sequence 1, Application US/09948939

QY 421 TACATGATCCCCCATGTTGTGCAAAAAAGCGGTTAGTCTCTCGGTCCTCCGATCGTTGT 480  
Db 682 TACATGATCCCCCATGTTGTGCAAAAAAGCGGTTAGTCTCTCGGTCCTCCGATCGTTGT 623

QY 481 CAGAAGTAAGTTGGCGCGAG 500  
Db 622 CAGAAGTAAGTTGGCGCGAG 603

RESULT 10  
US-09-764-891-5602/c  
; Sequence 5602, Application US/09764891  
; Publication No. US20030077808A1  
; GENERAL INFORMATION:  
; APPLICANT: Rosen et al.  
; TITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies  
; FILE REFERENCE: PC006  
; CURRENT APPLICATION NUMBER: US/09/764,891  
; CURRENT FILING DATE: 2001-01-17  
; Prior application data removed - consult PALM or file wrapper  
; NUMBER OF SEQ ID NOS: 10231  
; SOFTWARE: PatentIn Ver. 2.0  
; SEQ ID NO 5602  
; LENGTH: 2213  
; TYPE: DNA  
; ORGANISM: Homo sapiens  
US-09-764-891-5602

Query Match 92.4%; Score 462; DB 10; Length 2213;  
Best Local Similarity 99.2%; Pred. No. 2.6e-149;  
Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;

QY 1 ATATATGAGTAAGTCTGCTGACAGTTACCAATGCTTAATCAGTGAGGACCTATCTCA 60  
Db 1098 ATATATGAGTAAGTCTGCTGACAGTTACCAATGCTTAATCAGTGAGGACCTATCTCA 1039

QY 61 GCGATCTGTCTATTTCGTTTCATCCCATAGTTGCTTGCCTGCAACTCCCGTCTGTAGATAACT 120  
Db 1038 GCGATCTGTCTATTTCGTTTCAT--CCATAGTTGCTG--ACTCCCGTCTGTAGATAACT 982

QY 121 ACGATACGGGAGGCTTACCATCTGCCCCAGTGTGCAATGATACCGGGAAGACCCAG 180  
Db 981 ACGATACGGGAGGCTTACCATCTGCCCCAGTGTGCAATGATACCGG--AGACCCAG 923

QY 181 CTCACGGGCTCCAGATTTATCAGCAATTAACACGAGCCGCGGAGGCGGAGCAGAG 240  
Db 922 CTCACGGGCTCCAGATTTATCAGCAATTAACACGAGCCGCGGAGGCGGAGCAGAG 863

QY 241 TGGTCTCTGCAACTTTATCCGCTCCATCCAGTCTATTAAATTTGTCGGGGAAGCTAGAGT 300  
Db 862 TGGTCTCTGCAACTTTATCCGCTCCATCCAGTCTATTAAATTTGTCGGGGAAGCTAGAGT 803

QY 301 AAGTAGTTCCGCAAGTTAATAGTTTGGCGCAACGTTGTTGCCATTGCTGCGAGGCATCGTGGT 360  
Db 802 AAGTAGTTCCGCAAGTTAATAGTTTGGCGCAACGTTGTTGCCATTGCTGCGAGGCATCGTGGT 743

QY 361 GTCACGCTCGTCTGTTGGTATGCTTCATTACAGTCCGCTCCCAACGATCAAGGCGAGT 420  
Db 742 GTCACGCTCGTCTGTTGGTATGCTTCATTACAGTCCGCTCCCAACGATCAAGGCGAGT 683

QY 421 TACATGATCCCCCATGTTGTGCAAAAAAGCGGTTAGTCTCTCGGTCCTCCGATCGTTGT 480  
Db 682 TACATGATCCCCCATGTTGTGCAAAAAAGCGGTTAGTCTCTCGGTCCTCCGATCGTTGT 623

QY 481 CAGAAGTAAGTTGGCGCGAG 500  
Db 622 CAGAAGTAAGTTGGCGCGAG 603

RESULT 11  
US-09-948-939-1  
; Sequence 1, Application US/09948939

```

; Publication No. US20020086014A1
; GENERAL INFORMATION:
; APPLICANT: Korman, Alan J.
; APPLICANT: Halk, Edward L.
; APPLICANT: Lonberg, Nils
; APPLICANT: Medarex, Inc.
; TITLE OF INVENTION: Human CTLA-4 Antibodies and Their Uses
; FILE REFERENCE: 014643-010520US
; CURRENT APPLICATION NUMBER: US/09/948,939
; CURRENT FILING DATE: 2001-12-18
; PRIOR APPLICATION NUMBER: US 60/150,452
; PRIOR FILING DATE: 1999-08-24
; PRIOR APPLICATION NUMBER: 09/644,668
; PRIOR FILING DATE: 2000-08-24
; NUMBER OF SEQ ID NOS: 41
; SOFTWARE: PatentIn ver. 2.1
; SEQ ID NO 1
; LENGTH: 3159
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:cloning vector
; OTHER INFORMATION: pgPlk
US-09-948-939-1

Query Match          92.4%; Score 462; DB 9; Length 3159;
Best Local Similarity 99.2%; Pred. No. 3.le-149;
Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;

QY      1  ATATATCAGTAACCTGGTCTGCAGAGTTACCAATGCTTAATCAGTGAGGCACCTATCTCA 60
DB      2067 ATATATCAGTAACCTGGTCTGCAGAGTTACCAATGCTTAATCAGTGAGGCACCTATCTCA 2126

QY      61  GCGATCTGTCTATTTCGTTTCATCCCATAGTTGCTCGCAACTCCCCGTCGTGTAGATAACT 120
DB      2127 GCGATCTGTCTATTTCGTTTCAT-CCATAGTTGCTG--ACTCCCGTCGTGTAGATAACT 2183

QY      121 ACGNATCGGAGGGCTTACCATCTGGGCCCGAGTGTGCAATGATACCGGAAGACCCACG 180
DB      2184 ACGNATCGGAGGGCTTACCATCTGGGCCCGAGTGTGCAATGATACCGCG-AGACCCACG 2242

QY      181 CTCACCGGCTCCAGATTATCAGCAATAAACACGAGCCGAGGCGGAGGCGCGCAGAAG 240
DB      2243 CTCACCGGCTCCAGATTATCAGCAATAAACACGAGCCGAGGCGGAGGCGCGAGAAG 2302

QY      241 TGGTCTCGCAACTTTATCCGCGCTCCATCCAGTCTATTAAATTTGTCGGGAAGCTAGAGT 300
DB      2303 TGGTCTCGCAACTTTATCCGCGCTCCATCCAGTCTATTAAATTTGTCGGGAAGCTAGAGT 2362

QY      301 AAGTAGTTCCGCAAGTTAAATGTTTGGCGCAACGTTGTGCGCAATGCTGCAAGGCATCGTGGT 360
DB      2363 AAGTAGTTCCGCAAGTTAAATGTTTGGCGCAACGTTGTGCGCAATGCTGCTGCAAGGCATCGTGGT 2422

QY      361 GTCACGCTCGTGGTTGGTATGCTTCATTTCAGTCTCGGTTCCCAACGATCAAGGCGAGT 420
DB      2423 GTCACGCTCGTGGTTGGTATGCTTCATTTCAGTCTCGGTTCCCAACGATCAAGGCGAGT 2482

QY      421 TACATGATCCCCCATGTTGTGCAAAAAGCGGTTAGCTCTCTCGTGGTCTCCGATCGTTGT 480
DB      2483 TACATGATCCCCCATGTTGTGCAAAAAGCGGTTAGCTCTCTCGTGGTCTCCGATCGTTGT 2542

QY      481 CAGAAGTAAGTTGGCCGCGAG 500
DB      2543 CAGAAGTAAGTTGGCCGCGAG 2562

```

RESULT 12  
US-10-324-493-4  
; Sequence 4, Application US/10324493  
; Publication NO. US20030124121A1  
; GENERAL INFORMATION:  
; APPLICANT: Plueneke, John  
; TITLE OF INVENTION: USE OF INTERLEUKIN-4 ANTAGONISTS AND COMPOSITIONS THEREOF

```

; FILE REFERENCE: 3005-C
; CURRENT APPLICATION NUMBER: US/10/324,493
; CURRENT FILING DATE: 2002-12-19
; PRIOR APPLICATION NUMBER: US/09/847,816
; PRIOR FILING DATE: 2001-05-01
; PRIOR APPLICATION NUMBER: 09/579,808
; PRIOR FILING DATE: 2000-05-26
; PRIOR APPLICATION NUMBER: 09/665,343
; PRIOR FILING DATE: 2000-09-19
; PRIOR APPLICATION NUMBER: 09/785,934
; PRIOR FILING DATE: 2001-02-15
; NUMBER OF SEQ ID NOS: 26
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 4
; LENGTH: 3159
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: "Cloning vector pGPlk"
US-10-324-493-4

```

| Query Match           | 92.4%          | Score 462   | DB 15    | Length 3159 |
|-----------------------|----------------|---|----------|-------------|
| Best Local Similarity | 99.2%          | Prod. No. 3.1e-149  |          |             |
| Matches 496           | Conservative 0 | Mismatches 0  | Indels 4 | Gaps 3      |
| QY                    | 1              | ATATATCAGTAAACTTGGTCTGCAGCTTACCAATGCTTAATCAGTAGGGACCTATCTCA   | 60       |             |
| Db                    | 2067           | ATATATGAGTAAACTTGGTCTGCAGCTTACCAATGCTTAATCAGTAGGGACCTATCTCA   | 2126     |             |
| QY                    | 61             | GCATCTGTCTATTTTCGTTTCATCCCATAGTTGCTGCAACTCCCCGTCGTGTAGATAA    | 120      |             |
| Db                    | 2127           | GCATCTGTCTATTTTCGTTTCAT--CAATAGTTGCTG--ACTCCCGTCGTGTAGATAA    | 2183     |             |
| QY                    | 121            | ACGATACGGAGGGCTTACCATCTGCGCCCACTGCTGCAATGATACCGGAAGACCCACG    | 180      |             |
| Db                    | 2184           | ACGATACGGAGGGCTTACCATCTGCGCCCACTGCTGCAATGATACCGG--ACACCCACG   | 2242     |             |
| QY                    | 181            | CTCACCGGCTCCAGATTTATCAGCAATAACACGACCGGAGGCGCGAGCGAGAAG        | 240      |             |
| Db                    | 2243           | CTCACCGGCTCCAGATTTATCAGCAATAAACACGACCGGAGGCGCGAGCGAGAAG       | 2302     |             |
| QY                    | 241            | TGCTCTCTGCAACTTTATCGCCCTCCATCCAGTCTATTAAATGTTGCGGGAAGCTAGAGT  | 300      |             |
| Db                    | 2303           | TGCTCTCTGCAACTTTATCGCCCTCCATCCAGTCTATTAAATGTTGCGGGAAGCTAGAGT  | 2362     |             |
| QY                    | 301            | AGTAGTTCCGCAAGTAAATAGTTTGGCGAACGTTGTGCCATTTGCTGACGGCATCGTGGT  | 360      |             |
| Db                    | 2363           | AGTAGTTCCGCAAGTAAATAGTTTGGCGAACGTTGTGCCATTTGCTGACGGCATCGTGGT  | 2422     |             |
| QY                    | 361            | GTACGCTCGTCTGGTTGGTATAGCTTCATTACAGTCCGGTTCCTCCACGATCAAGGCGAGT | 420      |             |
| Db                    | 2423           | GTACGCTCGTCTGGTTGGTATAGCTTCATTACAGTCCGGTTCCTCCACGATCAAGGCGAGT | 2482     |             |
| QY                    | 421            | TACATGATCCCCCATGTTGTGCAGAAAAGCGGTTAGTCTCTTTCGGTCTCCGATCGTTGT  | 480      |             |
| Db                    | 2483           | TACATGATCCCCCATGTTGTGCAGAAAAGCGGTTAGTCTCTTTCGGTCTCCGATCGTTGT  | 2542     |             |
| QY                    | 481            | CAGAGTAAGTTGGCCGCAG   | 500      |             |
| b                     | 2543           | CAGAGTAAGTTGGCCGCAG   | 2562     |             |

RESULT 13  
US-09-883-573-1  
; Sequence 1, Application US/09883573  
; Publication No. US20030124523A1  
; GENERAL INFORMATION:  
; APPLICANT: Husken, Dieter  
; APPLICANT: Weiler, Jan  
; APPLICANT: Asselbergs, Fredericus Alphonsus Maria  
; APPLICANT: Hall, Jonathan  
; APPLICANT: Natt, Francois  
; APPLICANT: Kinzel, Bernd

; TITLE OF INVENTION: Organic Compounds  
 ; FILE REFERENCE: 4-31471  
 ; CURRENT APPLICATION NUMBER: US/09/883,573  
 ; CURRENT FILING DATE: 2001-06-18  
 ; PRIOR APPLICATION NUMBER: 60/213,132  
 ; PRIOR FILING DATE: 2000-06-22  
 ; PRIOR APPLICATION NUMBER: 60/266,949  
 ; PRIOR FILING DATE: 2001-02-07  
 ; NUMBER OF SEQ ID NOS: 11  
 ; SOFTWARE: FastSeq for Windows Version 4.0  
 ; SEQ ID NO 1  
 ; LENGTH: 4021  
 ; TYPE: DNA  
 ; ORGANISM: Artificial Sequence  
 ; FEATURE:  
 ; OTHER INFORMATION: plasmid  
 US-09-883-573-1

Query Match 92.4%; Score 462; DB 10; Length 4021;  
 Best Local Similarity 99.2%; Pred. No. 3.4e-149;  
 Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;  
 QY 1 ATATATGAGTAAACTTGGTCTGACAGTTACCAATGCTTAATCAGTGGGACACCTATCTCA 60  
 DB 2829 ATATATGAGTAAACTTGGTCTGACAGTTACCAATGCTTAATCAGTGGGACACCTATCTCA 2888  
 QY 61 GCGATCTGTCTATTTCGTTTCATCCCATAGTTGCTGCAACTCCCGCTCGTGTAGATAACT 120  
 DB 2889 GCGATCTGTCTATTTCGTTTCAT -CCATAGTTGCTG -ACTCCCGCTCGTGTAGATAACT 2945  
 QY 121 ACGATACGGAGGGCTTACCATCTGGCCCCAGTGTGCAATGATACCGCAAGACCCACG 180  
 DB 2946 ACGATACGGAGGGCTTACCATCTGGCCCCAGTGTGCAATGATACCGCG -AGACCCACG 3004  
 QY 181 CTCACGGCTCCAGATTATCAGCAATAAACACGAGCGGAGCGGAGCGGAGCGAGAG 240  
 DB 3005 CTCACGGCTCCAGATTATCAGCAATAAACACGAGCGGAGCGGAGCGGAGCGAGAG 3064  
 QY 241 TGGTCTCTGCAACTTTATCCCGCTCCATCCAGTCTATTAAATTTGTCGGGAACTAGAGT 300  
 DB 3065 TGGTCTCTGCAACTTTATCCCGCTCCATCCAGTCTATTAAATTTGTCGGGAACTAGAGT 3124  
 QY 301 AAGTAGTTCGCCAGTTAATAGTTTGGCAACGTTGTCGCAATGCTGCGAGGCAATCGTGGT 360  
 DB 3125 AAGTAGTTCGCCAGTTAATAGTTTGGCAACGTTGTCGCAATGCTGCGAGGCAATCGTGGT 3184  
 QY 361 GTCAAGCTCTGCTTGGTATGCTTCATTCAGTCCGGTTCCTCCAGGATCAAGGCGAGT 420  
 DB 3185 GTCAAGCTCTGCTTGGTATGCTTCATTCAGTCCGGTTCCTCCAGGATCAAGGCGAGT 3244  
 QY 421 TACATGATCCCCCATGTTGTGCAAAAAAGCGGTTAGTCTCTCCGTCCTCCGATCGTTGT 480  
 DB 3245 TACATGATCCCCCATGTTGTGCAAAAAAGCGGTTAGTCTCTCCGTCCTCCGATCGTTGT 3304  
 QY 481 CAGAAGTAAGTTGGCGCGAG 500  
 DB 3305 CAGAAGTAAGTTGGCGCGAG 3324

RESULT 14  
 US-09-813-718-5/c  
 ; Sequence 5, Application US/09813718  
 ; Publication No. US20020182666A1  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Schimmel, Paul  
 ; APPLICANT: Wakasugi, Keisuke  
 ; TITLE OF INVENTION: Human Aminoacyl-tRNA Synthetase Polypeptides Useful For  
 ; FILE REFERENCE: 00-221  
 ; CURRENT APPLICATION NUMBER: US/09/813,718  
 ; CURRENT FILING DATE: 2001-03-21  
 ; NUMBER OF SEQ ID NOS: 58  
 ; SOFTWARE: PatentIn Ver. 2.0

; SEQ ID NO 5  
 ; LENGTH: 4100  
 ; TYPE: DNA  
 ; ORGANISM: Artificial Sequence  
 ; FEATURE:  
 ; NAME/KEY: CDS  
 ; LOCATION: (3428)..(3961)  
 ; OTHER INFORMATION: Description of Artificial Sequence: human Tyrrs  
 ; OTHER INFORMATION: carboxyl-terminal domain in pBT20B  
 US-09-813-718-5  
 Query Match 92.4%; Score 462; DB 9; Length 4100;  
 Best Local Similarity 99.2%; Pred. No. 3.5e-149;  
 Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;  
 QY 1 ATATATGAGTAAACTTGGTCTGACAGTTACCAATGCTTAATCAGTGGGACACCTATCTCA 60  
 DB 1485 ATATATGAGTAAACTTGGTCTGACAGTTACCAATGCTTAATCAGTGGGACACCTATCTCA 1426  
 QY 61 GCGATCTGTCTATTTCGTTTCATCCCATAGTTGCTGCAACTCCCGCTCGTGTAGATAACT 120  
 DB 1425 GCGATCTGTCTATTTCGTTTCAT -CCATAGTTGCTG -ACTCCCGCTCGTGTAGATAACT 1369  
 QY 121 ACGATACGGAGGGCTTACCATCTGGCCCCAGTGTGCAATGATACCGCAAGACCCACG 180  
 DB 1368 ACGATACGGAGGGCTTACCATCTGGCCCCAGTGTGCAATGATACCGCG -AGACCCACG 1310  
 QY 181 CTCACGGCTCCAGATTATCAGCAATAAACACGAGCGGAGCGGAGCGGAGCGAGAG 240  
 DB 1309 CTCACGGCTCCAGATTATCAGCAATAAACACGAGCGGAGCGGAGCGGAGCGAGAG 1250  
 QY 241 TGGTCTCTGCAACTTTATCCCGCTCCATCCAGTCTATTAAATTTGTCGGGAACTAGAGT 300  
 DB 1249 TGGTCTCTGCAACTTTATCCCGCTCCATCCAGTCTATTAAATTTGTCGGGAACTAGAGT 1190  
 QY 301 AAGTAGTTCGCCAGTTAATAGTTTGGCAACGTTGTCGCAATGCTGCGAGGCAATCGTGGT 360  
 DB 1189 AAGTAGTTCGCCAGTTAATAGTTTGGCAACGTTGTCGCAATGCTGCGAGGCAATCGTGGT 1130  
 QY 361 GTCAAGCTCTGCTTGGTATGCTTCATTCAGTCCGGTTCCTCCAGGATCAAGGCGAGT 420  
 DB 1129 GTCAAGCTCTGCTTGGTATGCTTCATTCAGTCCGGTTCCTCCAGGATCAAGGCGAGT 1070  
 QY 421 TACATGATCCCCCATGTTGTGCAAAAAAGCGGTTAGTCTCTCCGTCCTCCGATCGTTGT 480  
 DB 1069 TACATGATCCCCCATGTTGTGCAAAAAAGCGGTTAGTCTCTCCGTCCTCCGATCGTTGT 1010  
 QY 481 CAGAAGTAAGTTGGCGCGAG 500  
 DB 1009 CAGAAGTAAGTTGGCGCGAG 990

RESULT 15  
 US-10-240-532-5/c  
 ; Sequence 5, Application US/10240532  
 ; Publication No. US20040009163A1  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Schimmel, Paul  
 ; APPLICANT: Wakasugi, Keisuke  
 ; TITLE OF INVENTION: Human Aminoacyl-tRNA Synthetase Polypeptides Useful For  
 ; FILE REFERENCE: TSRI 720.1  
 ; CURRENT APPLICATION NUMBER: US/10/240,532  
 ; CURRENT FILING DATE: 2002-09-30  
 ; PRIOR APPLICATION NUMBER: PCT/US01/08975  
 ; PRIOR APPLICATION NUMBER: 2001-03-21  
 ; PRIOR APPLICATION NUMBER: US 60/193,471  
 ; PRIOR APPLICATION NUMBER: 2000-03-31  
 ; NUMBER OF SEQ ID NOS: 58  
 ; SOFTWARE: PatentIn Ver. 2.0  
 ; SEQ ID NO 5  
 ; LENGTH: 4100  
 ; TYPE: DNA

## ORGANISM: Artificial Sequence

FEATURE:

NAME/KEY: CDS

LOCATION: (3428)..(3961)

FEATURE:

OTHER INFORMATION: Description of Artificial Sequence: human TyrRS

OTHER INFORMATION: carboxyl-terminal domain in pET20B

US-10-240-532-5

Query Match 92.4%; Score 462; DB 17; Length 4100;  
Best Local Similarity 99.2%; Pred. No. 3.5e-149;  
Matches 496; Conservative 0; Mismatches 0; Indels 4; Gaps 3;

QY 1 ATATATGAGTAAACTTGGCTGACAGTTTACCAATGCTTAATCAGTGAGGCACCTATCTCA 60  
Db |||||||  
1485 ATATATGAGTAAACTTGGCTGACAGTTTACCAATGCTTAATCAGTGAGGCACCTATCTCA 1426

QY 61 GCGATCTGCTTATTTGCTTATCCCATAGTTGCTGCAACTCCCCGTCGTGTAGATAACT 120  
Db |||||||  
1425 GCGATCTGCTTATTTGCTTATCCCATAGTTGCTGCAACTCCCCGTCGTGTAGATAACT 1369

QY 121 ACGATACGGGAGGCTTACCATCTGCGCCAGTCTGCTCAATGATACCGCAAGACCCACG 180  
Db |||||||  
1368 ACGATACGGGAGGCTTACCATCTGCGCCAGTCTGCTCAATGATACCGCAAGACCCACG 1310

QY 181 CTCACCGGCTCCAGATTATCAGCAATAAACACGCGGAGGCGGAGGCGGAGGCGGAGG 240  
Db |||||||  
1309 CTCACCGGCTCCAGATTATCAGCAATAAACACGCGGAGGCGGAGGCGGAGGCGGAGG 1250

QY 241 TGGTCTTGCAACTTATCCGCTCCATCCAGTCTATTAATTTGTCGGGAAAGCTAGAGT 300  
Db |||||||  
1249 TGGTCTTGCAACTTATCCGCTCCATCCAGTCTATTAATTTGTCGGGAAAGCTAGAGT 1190

QY 301 AAGTAGTTCGCCAGTTAATAGTTTGGCAACGTTGTCATTTGCCATGCTGCAGGCATCGTGT 360  
Db |||||||  
1189 AAGTAGTTCGCCAGTTAATAGTTTGGCAACGTTGTCATTTGCCATGCTGCAGGCATCGTGT 1130

QY 361 GTCACGCTCGTGGTTGGTATGGCTTCATTCAGTCCGGTTCCCAACGATCAAGGCGAGT 420  
Db |||||||  
1129 GTCACGCTCGTGGTTGGTATGGCTTCATTCAGTCCGGTTCCCAACGATCAAGGCGAGT 1070

QY 421 TACATGATCCCCCATGTTGCAAAAAGCGGTAGTCTCTTCGGTCTCCGATCGTTGT 480  
Db |||||||  
1069 TACATGATCCCCCATGTTGCAAAAAGCGGTAGTCTCTTCGGTCTCCGATCGTTGT 1010

QY 481 CAGAAGTAAGTTGGCGCGAG 500  
Db |||||||  
1009 CAGAAGTAAGTTGGCGCGAG 990

Search completed: April 29, 2005, 06:00:46  
Job time : 2580 secs